

The CHEMIST AND DRUGGIST



For Retailer, Wholesaler and Manufacturer

NOVEMBER 28 1959

Weather forecast bad- ...sales forecast good!

YOUR SAVLON LOZENGES SALES THRIVE ON



**GERMS
COLD
DAMP**

and on our hard-sell advertisements

ALL SEASON THROUGH

hard-punching advertising
will be running in the
Express, Mirror, Mail,
Telegraph, Radio Times
... plus national magazines,
local press and TV
in selected areas.

The grey days will be
sunny for Savlon Lozenges
... you'll see.

Order
SAVLON LOZENGES
Now!

make the most of the murk



Savlon

Glamorous Princess **NYLON** *Dress Overalls*

Turquoise Pink Wine Apple Green Lilac Saxe Blue White

★ NO LAUNDRY BILLS.

★ SUPER QUALITY NON TRANSPARENT 4 OZ. NYLON.

★ WHEN SOILED JUST WASH THROUGH AND HANG ON FREE HANGER, READY TO WEAR IN 2 HOURS.

★ NON IRON.

★ DRIP DRY.

★ REINFORCED SEAMS.

★ SEWN WITH NYLON THREAD THROUGHOUT.

AVAILABLE IN THESE SHADES
KINDLY STATE SECOND CHOICE

★ CRISP FRESH AND ATTRACTIVE

★ STYLED AND FASHIONED IN MAYFAIR.

★ BUTTONED THROUGH. THREE LARGE POCKETS. FLARED SKIRT AND TIE BELT.

★ WILL STAND UP TO THE HARDEST WEAR.

★ NOT TO BE CONFUSED WITH CHEAP INFERIOR IMITATIONS.

AJAX EVERCLEAN NYLON OVERALL
White or Grey

AJAX EVERCLEAN NYLON JACKET
White or Grey

45/- Short Sleeves

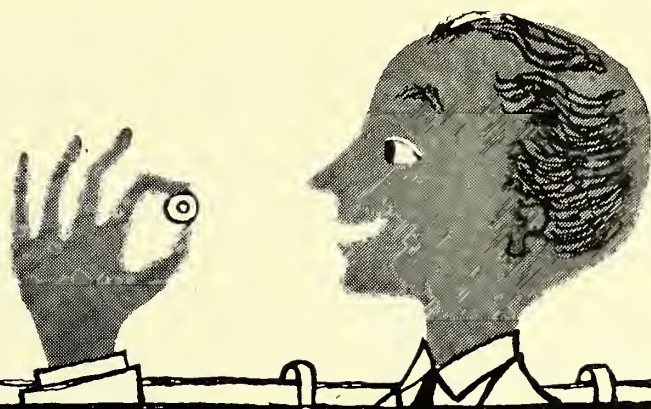
49/6 Long Sleeves

WOMENS SIZES: SW. W. WX.
OS. 5/- extra. State bust measurement.
MEN'S SIZES: State chest measurement.
Single Garments Post and Packing 2/-.
2 or more Post Free.

SPECIAL DISCOUNT
3-5 Garments 5% Cash Discount.
6 or more 10% Cash Discount.

45/- **We Guarantee Your entire Satisfaction.** **39/6**

MAIL ORDER ONLY
THE GREAT NATIONAL DIVIDEND STORES LTD.
National Buildings Dept. **CDI** P.O. Box 32
Stockport Cheshire



Remember
'TRILLETS'



—the throat lozenges with a sialogogue base; this ensures that the contained bactericide, antibiotic and local analgesic are carried swiftly to the sites of infection. The majority of local throat and mouth infections succumb to 'Trillets'.

'Trillets' are safe; they may be taken as often as four times an hour if necessary, and are suitable for children.

a thousand throats will thank you for

'TRILLETS'

TRADE
MARK

(Issued in tubes of 15 lozenges)



BURROUGHS WELLCOME & CO. (THE WELLCOME FOUNDATION LTD.) LONDON





This 'stuffy nose' sufferer couldn't breathe, smell or taste — life had lost its savour. But 'Neophryn with antihistamine' has lifted him out of all that. There will be many more like him this winter who will obtain welcome relief with 'Neophryn with antihistamine' — and now's the time to make sure your stocks are adequate.

There goes another satisfied customer!

Why with antihistamine?

The antihistamine in 'Neophryn with antihistamine' counters the allergic factor which has been shown to be present in many cases of the common cold. It also enhances the decongestant action of Neophryn and, by its mild local anaesthetic properties, soothes irritation of the nasal mucosa.



BAYER PRODUCTS LTD Kingston-upon-Thames · Surrey
Associated Exporting Co: **WINTHROP PRODUCTS LTD**

We help create the sales..



*Be sure you can
supply the demand*

Our ever-expanding advertising campaigns in the national, provincial and magazine press are constantly stimulating new sales, which mean new customers for you!

Here are five examples of our new plastic processed Showcards. All are in full colour and are eye catching, appealing and decorative.

We shall be pleased to send you display matter if you will let us know your requirements. Attractive "G" Brand Showcards are also available.

Please address your enquiries to

Cow & Gate Ltd (Dept. CD) • GUILDFORD • SURREY

NATURE'S NATURAL SKIN RESTORATIVE

The revolutionary discovery was recently made that Placenta Extract emulsified in essential oils is the most natural of skin restoratives and for many years the extract has been used in hospitals for tissue therapy. The external application of Placenta Oil is, in fact, the ideal means of regaining the natural suppleness of the skin.

PLACENTA OIL is available in two forms:
 PLACENTA OIL 'A'. Contains 5% placenta extract for preserving youthful skins.
 PLACENTA OIL 'B'. Contains 10% placenta extract for those over 35 and abnormal skin blemishes.



Placenta Oil

For further information write to:
 PLACENTA OIL LTD., 43 KNIGHTSBRIDGE, LONDON, S.W.1

Your customers know..

that Cuticura Ointment is the best possible all-round stand-by for cuts and grazes, minor burns, all kinds of spots and skin blemishes. Simply remind them—by display and recommendation—that soothing, anti-septic Cuticura Ointment should always be kept handy in the home; and make sure that your stocks are ready for the demand.

Cuticura Ointment

also

SOAP • TALCUM POWDER • HANDCREAM • MEDICATED LIQUID • SHAVING STICK

OVER 1'9^d

PROFIT

IN THE TILL



Over 1/9 BOX PROFIT by ordering
 1 dozen 6/3 size. Bonus given on every
 dozen (13). It pays to push this size.

C. & G. KEARSLEY LTD.
 71 DARTMOUTH ROAD, LONDON, S.E.23

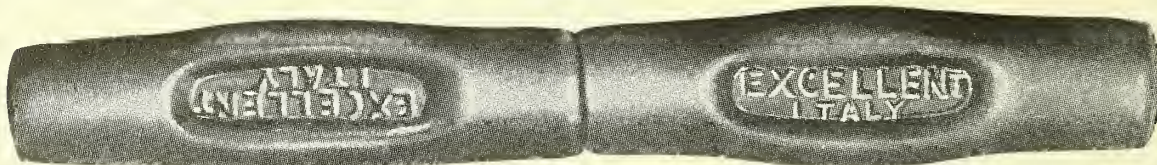
FWS

"OH! MR. WHOLESALER . .

alter my order please to three of the

NEW ONE DOZEN NIGROID DISPLAYS

they're selling so well. My customers seemed to forget about Nigroids when I kept some loose in a drawer, but they sell magnificently from the smart new counter display pack, encouraged of course by national advertising and I do like to support a quality product that is a 'Chemist only' line."



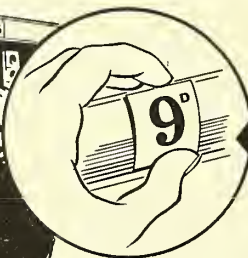
(1 oz. or 2 oz. sticks)

"EXCELLENT" is the name of our Licorice Juice Stick and excellent is the quality of all our CRUDE DRUGS, ESSENTIAL OILS, GUMS AND SPICES

BROME & SCHIMMER LTD.

7 LEATHER MARKET, LONDON, S.E.1

HOP 0825



Indispensable in your business

FALCONCRAFT PRICE EDGING

SHELF EDGE TICKET SYSTEMS

Hygienic glazed plastic Tickets for Metal, Plastic or Wood Beading

also **FASCIA LETTERING** Distinctive • Permanent • Easy-to-clean

Numerous standard designs or to customer's own specifications

and **COMMODITY & SERVICE SIGNS** ("COSMETICS," "DRUGS," "PHOTOGRAPHIC" etc). Engraved or applied on perspex background

FALCONCRAFT LTD. Dept 1, 91 HAINAULT ROAD • ROMFORD • ESSEX • Tel: Romford 61911-2

INDEX TO ADVERTISERS

Ademco, Ltd.	9	Cartwright, W. B., Ltd.	5
Allen & Hanburys, Ltd.	Cover iii. 20	Coates & Cooper, Ltd.	40
Allen, Stafford, & Sons, Ltd.	19	Cocker Chemical Co., Ltd.	48
Ayrton, Saunders & Co., Ltd.	43	Cow & Gate, Ltd.	3
Bayer Products, Ltd.	2	Cox, Arthur H., & Co., Ltd.	13
Beatson, Clark & Co., Ltd.	39	Crookes Laboratories, Ltd.	49
Beecham Pharmaceuticals, Ltd.	12	Cuticura Preparations	4
Bengue & Co., Ltd.	24	Cuxson, Gerrard & Co., Ltd.	30
Berdoe & Fish	Classified Section	Daniel, Richard. & Son, Ltd.	6
Blythe, William, & Co., Ltd.	46	Distillers Co. (Biochemicals), Ltd., The	10, 11
Boehringer, C. H., Sohn	21	Falconcraft, Ltd.	4
Borax Consolidated, Ltd.	25	Fibrenyle, Ltd.	35
British Drug Houses, Ltd., The	33	Furman, B. N. (Productions), Ltd.	32
British Felsol Co., Ltd.	Cover iv	George, Ernest J., & Co.	Classified Section
British Oxygen Gases, Ltd.	31	Glaxo Laboratories, Ltd.	26
Brome & Schimmer, Ltd.	4	Golden, Ltd.	8
Burroughs Wellcome & Co. (Fine Chemicals)	Interleaved Edit., 488	Graesser Salicylates, Ltd.	42
Burroughs Wellcome & Co. (Lamb Dysentery)	Interleaved Edit., 28	Graesser-Thomas, H. W., Ltd.	46
Burroughs Wellcome & Co. (Trillets)	1	Great National Dividend Stores, Ltd., The	Cover ii
Carnegies of Welwyn, Ltd.	32	Guest, Thos., & Co., Ltd.	40

(continued overleaf)

"YOUR NAME" COUNTER PRODUCTS MEAN REPEAT BUSINESS

Your name on the products you sell is the sure means of bringing customers *again* to your shop. We offer you:—

- A good range of pharmaceutical steady sellers.
- Attractively packed, labelled with your own name.
- Our guarantee of quality.
- Competitive prices.
- Quick Delivery.

W.B.CARTWRIGHT LTD

Manufacturing **RAWDON LEEDS** Chemists

Manufacturers of Maarland Indigestion Tablets. Penetral Inhalant. Labelline etc.

*May we have
the pleasure of
quoting you?*

INDEX (cont.)

Hawker & Co.	42	Modern Packages, Ltd.	44
Hooper, B., & Co., Ltd.	44	National Glass Works (York), Ltd.	18
Hormo Pharma, Ltd.	34	Nigroid Ferris, Ltd.	4
Imperial Chemical Industries, Ltd. (Pharmaceuticals Division)	Front Cover	Office Machinery, Ltd.	44
Jacobson van den Berg & Co. (U.K.), Ltd.	30	Orridge & Co.	Classified Section
Johnson & Johnson (Gt. Britain), Ltd.	38	Parke, Davis & Co.	Interleaved Edit., 27
Kearsley, C. & G., Ltd.	4	Pearl & Dean (Screen Advertising), Ltd.	16
Kemball, Bishop & Co., Ltd.	34	Placenta Oil, Ltd.	4
Lastonet Products, Ltd.	24	Powley, R., & Sons, Ltd.	17
Lederle Laboratories Division	29	Robinson & Sons, Ltd., 'Mene'	7
Macdonald & Son, Ltd.	14, 15	Rozalex, Ltd.	46
Matthews & Wilson, Ltd.	23	Salter, George, & Co., Ltd.	41
Maw, S., Son & Sons, Ltd.	47	Smith & Nephew Pharmaceuticals, Ltd.	22
Mawson & Proctor Pharmaceuticals, Ltd.	45	Societa per Azioni Industrie Agricole Meridionali	42, 54
May & Baker, Ltd.	36, 37	Stafford-Miller, Ltd.—Dr. Wernets	46
Medico-Biological Laboratories, Ltd.	43	Stewart, Goodall & Dunlop, Ltd.	48
		Suttley & Silverlock	42
		Vitamins, Ltd.	Interleaved Edit., 478
		Webster, Isaac, & Sons, Ltd.	42

IF YOU ARE LOOKING FOR A TABLET MANUFACTURER TO HANDLE YOUR PRODUCT
BE IT LARGE OR SMALL, IN THOUSANDS OR MILLIONS, WHY NOT



CONTACT ONE OF THE FOREMOST MAKERS WHO HAVE TAKEN PRIDE IN



MANUFACTURING TABLETS & PILLS FOR MANY YEARS



RICHARD DANIEL & SON, LTD. DERBY

Write us at Mansfield Road or ring Derby 40671 (Ten lines)

Introducing the
NEW Mene REGD. medium
1/- six-towel pack



MENE towels are now available in a new, smaller pack containing six towels, particularly handy for travelling. Mene enjoys the highest

reputation for quality and efficiency. *Women will want these new 6-towel packs. Be sure you are ready to supply them. ORDER NOW!*

TRADE PRICE NET: 9/2d. per doz. packets of 6 towels SELLING PRICE: 1/- per packet of 6 towels

The 6-towel packs are conveniently supplied to the retailer in non-returnable containers of 6 dozen packets.

ROBINSON AND SONS LIMITED CHESTERFIELD & LONDON

**The best-
and the
best selling
Hair Colouring**

Color-Glo
colour-lights your hair with
Controlled Colour

CHOOSE YOUR COLOR-GLO FROM THE CHART

NATURAL HAIR COLOUR	SUGGESTED SHADES OF COLOR-GLO
Dark Brown or Very Dark Brown	Dark Brown or Black
Brown, Medium or Light Brown	Medium Brown or Dark Brown
Light Brown or Light Blonde	Light Brown or Medium Brown
Very Light Brown or Blonde	Very Light Brown or Blonde
Dark Blonde	Dark Blonde or Medium Brown
Medium Blonde	Medium Blonde or Light Brown
Light Blonde	Light Blonde or Very Light Brown
Very Light Blonde	Very Light Blonde or Blonde

GIVES LASTING COLOUR THROUGH 6 TO 8 SHAMPOOS

Color-Glo
SEMI-PERMANENT HAIR COLOURING

Color-Glo is ringing up more profits each week than any other Hair Colouring

COLOR-GLO has created a new fast-growing market for semi-permanent hair colouring. COLOR-GLO is safe, simple and effective to use. Natural-looking with no risk of extreme results. That's why it sells better than any other hair colouring. When women see you've got COLOR-GLO they'll buy. And be back—regularly—for more. So don't just stock COLOR-GLO, display eye-catching COLOR-GLO packs and showcards—and link up with the biggest ever COLOR-GLO advertising campaign

And now...
an even wider market with
BLACK TULIP (Deep Burgundy)

*A new shade for dark hair giving
a beautiful, deep, mahogany tone*

Biggest ever Color-Glo advertising is this year
reaching over 17,000,000 women.

Color-Glo

TRADE MARK

SEMI-PERMANENT HAIR COLOURING

GOLDEN LIMITED · 7 GROSVENOR STREET · LONDON W.1 · HYDe Park 1671/6

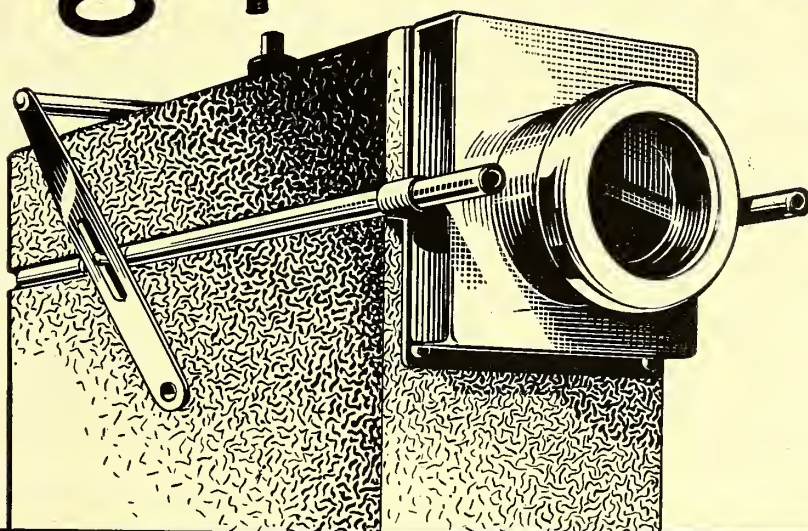
Republic of Ireland enquiries to Lilmar Pharmaceuticals Limited, Santry, Dublin.

The effect lasts
through 6 to 8 shampoos

A creation of
L'OREAL · PARIS



here's a natural for your photographic counter



the

IVETTE TWIN

PROJECTOR & VIEWER

At £6.17.6 the *Ivette Twin* Projector was tailor made for the Chemists' photo trade.

At £6.17.6 the *Ivette Twin* comes within reach of every colour enthusiast.

At £6.17.6 the *Ivette Twin* combines all sales for viewers and projectors in one easy-to-sell instrument.

In the *Ivette Twin* popularly priced colour photography has at last been matched with a popularly priced projector.

£6.17.6 includes everything: lamp, carrying case and table viewing attachment, and mains transformer for all voltages.

No other projector in this price bracket has the double selling feature of the *Ivette Twin*.

Brilliant 2' 6" picture by forward projection. Sparkling 6" x 6" enlargements when used as a table viewer.

£6.17.6

Here's the line which can maintain your winter photo sales at summer levels. Make sure of your Christmas gift supplies NOW. If your usual wholesaler can't supply, write to :

ADEMCO LTD., 26 STAMFORD STREET, LONDON, S.E.1

WATERloo 3484

the short way to say hydrochlorothiazide is simply

On more and more prescriptions doctors are writing 'Direma'

... it's the name they *remember* for today's most potent

oral diuretic ... and it's the name which ensures that

the DC(B)L brand of hydrochlorothiazide will be dispensed.

Please notice, too, that 'Direma' can be dispensed on

all *open* prescriptions for hydrochlorothiazide.



THE DISTILLERS COMPANY (Biochemicals) LIMITED

BROADWAY HOUSE, THE BROADWAY, WIMBLEDON, LONDON, S.W.19

Telephone: LiBerty 6600 Owners of the trade mark 'Direma'



TRADE MARK

- * Easily written
- * Easily remembered
- * Easily the most efficient of the oral diuretics

TABLETS (25 mg.)

	TRADE PRICE
TUBE OF 25	8s. 8d.
BOTTLE OF 100	32s. 8d.
BOTTLE OF 500	160s. Od.

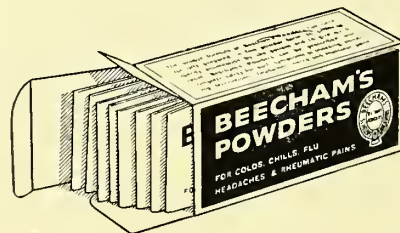
TABLETS (50 mg.)

	TRADE PRICE
TUBE OF 25	16s. Od.
BOTTLE OF 100	60s. Od.
BOTTLE OF 500	290s. Od.



...be ready with a good stock of
this winter top seller

Be in at the beginning of the high seasonal sales of Beecham's Powders. Check your stocks—and order now. Remember last year's enormous sales! Be ready for this season's even greater demand. Beecham's Powders will be supported by the biggest ever advertising campaign this winter. So stock up and display this fast-moving, profitable line.



BEECHAM'S POWDERS

THE UNIQUE PRESCRIPTION FOR COLDS & FLU

Beecham's Powders advertising is appearing on Television, in the Press, in the Cinema and on Radio Luxembourg's top-line show "TAKE YOUR PICK".

Orders and enquiries to:
BEECHAM PHARMACEUTICALS LTD.,
ST. HELENS LANCs.



This man works hard

but he has found time to relax because he is not beset by the worries with which many men in business are afflicted. He used to make his own lines, but he has found it safer, more economical, and far less exhausting to have his ideas developed, manufactured and packaged by people who have been doing that sort of thing for years—successfully.

He went to COX of Brighton and discussed every detail of his established and new projects with their technicians—and they did the rest.

Now he finds more time to develop marketing opportunities at home, and abroad—greatly to his advantage.



ARTHUR H. COX & CO. LTD.
BRIGHTON · ENGLAND

Manufacturing, Packaging — the complete service

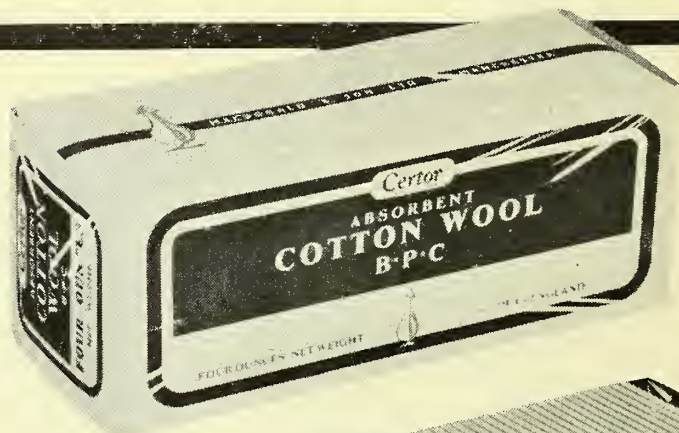
Certor
REGD.

SURGICAL DRESSINGS B.P.C.

Mansil

HOSPITAL COTTON WOOL

The quality and
dependability
of these
Film-wrapped
Dressings
really add to the
prestige and
service of your
pharmacy



Certor
REGD.

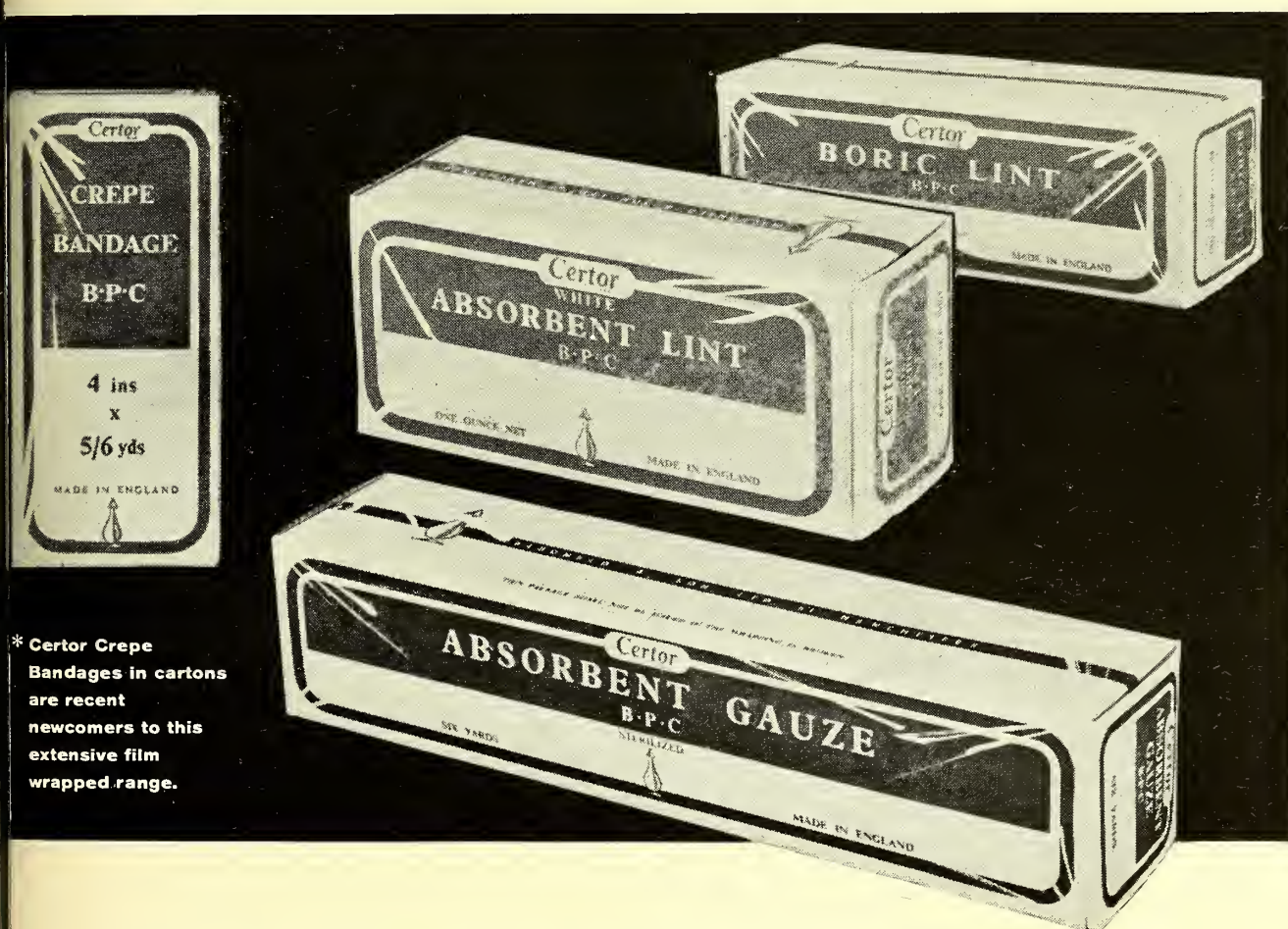
Absorbent Cotton Wool in Blue cartons
Absorbent Lint in Green cartons
Boric Lint in Red cartons
Absorbent Gauze in Maroon cartons
Crepe Bandage in Orange cartons

Mansil

Hospital Cotton Wool in
Pale Blue cartons



- * Quality tested
- * Carton packed for longer life
- * Film wrapped for extra protection
- * Heat sealed for greater hygiene
- * Coloured for quicker identification



* Certor Crepe Bandages in cartons are recent newcomers to this extensive film wrapped range.

For your 1960 contract order the best

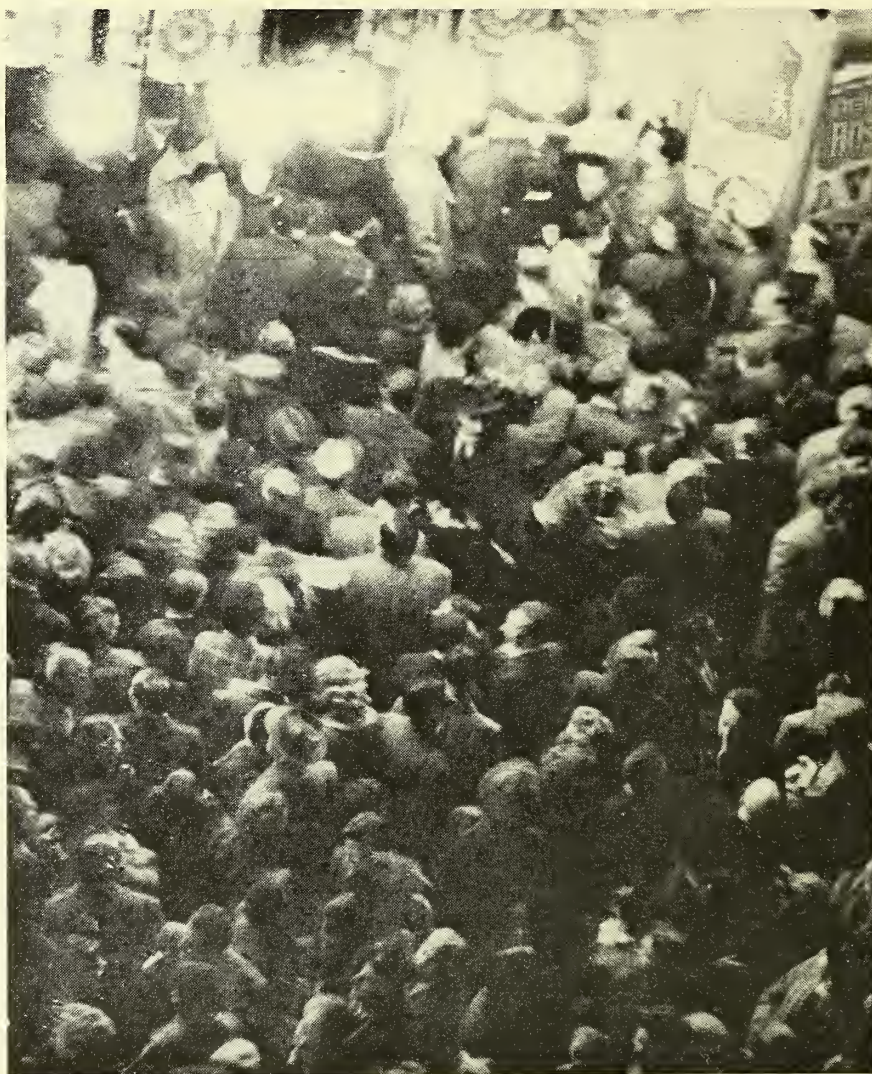
order **Certor** and **Mansil** dressings

MACDONALD & SON LTD · MANCHESTER & LONDON
ORTLAND MILL · ASHTON-UNDER-LYNE · LANCS · TEL: ASHTON-U-LYNE 4422
25. HOLYWELL ROW · LONDON E.C.2 · TEL: BISHOPSGATE 4809

1. SELLING IN THE CINEMA



Make
hay
while
the
stars
shine



Who are today's big spenders?

The young unmarried people between 15 and 25.

And where can they best be reached with a sales message, held captive, and sold?

In the cinema.

This section of the population is spending something over £900 millions a year. Since 1938 their

earnings have doubled. Their numbers are increasing. They do not habitually read newspapers or watch television, but 99% of them go to the cinema.

Reaching the big spenders

There are currently about 3,500 cinemas in this country at which cinema commercials are shown. PEARL & DEAN have rights in nearly half of these.

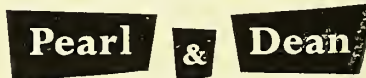
Prices are fixed at 6/- per 15-second commercial per 1,000 viewers. At this rate, £1,500 will buy a 15-second film for an audience

of 5 million; the same sized audience can watch a two-minute commercial for £6,875.

Localising a Campaign

You can choose your areas to tie-in with your campaigns, make your sales where most wanted, appeal specifically to users and potential users of your product.

Sell in the cinema through



33 DOVER STREET, LONDON, W.1
MAYFAIR 7494

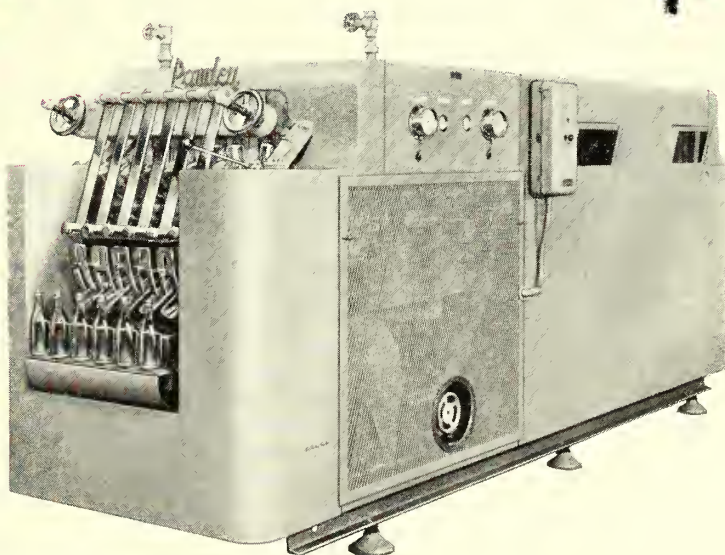
**what
the
'bottler'
saw!**

Every bottler who uses the Spartan blesses the day he bought it. Not only was the price the most reasonable offered but his bottles have never been cleaner and his running costs (once a nightmare) are now happily very low, giving a boost to the profit margin.

And he takes added comfort from the knowledge that he has only to lift his 'phone and the Powley After-Sales-Service is on the job.

Also to his great advantage is the small amount of floor space the Spartan requires.

6 wide 2160 per hr. 12'8" long × 6'0" wide
8 wide 2880 per hr. 12'8" long × 6'8" wide
10 wide 3600 per hr. 12'8" long × 7'4" wide



Spartan

hydro bottle washer

R. POWLEY & SONS LIMITED Dept III St. Marks Rd. Sunderland, Eng.
Telegrams and Cables "Powley" Sunderland Telephone 4846/7

QUALITY

IN WHITE FLINT GLASS CONTAINERS

DISPENSING BOTTLES

1-oz. to 20-oz.

RIBBED OVALS $\frac{1}{2}$ -oz. to 16-oz.**PLAIN OVALS**

4-oz., 8-oz. and 16-oz.

BOW-FRONT PANELS

1-oz. to 8-oz. and 16-oz.

OLIVE OIL BOTTLES $2\frac{1}{2}$ -oz., 5-oz. and 10-oz.**OVAL TABLET BOTTLES**Nos. 1 to $7\frac{1}{2}$ sizes.**RECTANGULAR TABLET BOTTLES**

Nos. 1, 2, 3, 4, 5, 6 and 9 sizes

ROUND SCREW JARS

Tall and Semi-squat.

PANEL FLATS

1-oz. to 4-oz.

VIALS $\frac{1}{4}$ -oz. to 3-oz.

- Prompt delivery from stock
- Packed in easily handled cartons
- Wholesale only

First Class in GLASS

* AMBER BOTTLES. We can now offer certain types of glass containers in Amber and your enquiries are invited.

**NATIONAL GLASS
WORKS (YORK) LTD.**

FISHERGATE, YORK. Tel. YORK 23021

ALSO AT: CAROLINE HOUSE, 55-57 HIGH HOLBORN,
LONDON, W.C.1. Tel. HOLBORN 2146

Trade  Mark



StaffordAllenS ointments and creams are exceptionally fine and smooth. Solid ingredients are added in fine subdivision and very fine milling of the ointment mix is achieved through micrometer adjusted Colloid Mills.

OUR RANGE INCLUDES:

Crem. Calamin. Co., B.P.C.	Crem. Zinci Oxid., B.P.C.	Ung. Capsici. B.P.
Ung. Acid Benz. Co., B.P.C.	Ung. Hydrarg. Co., B.P.	
Ung. Methyl. Sal., B.P.C.	Ung. Zinci Oxid., B.P.	

WE ALSO MANUFACTURE TO CUSTOMERS' PRIVATE FORMULAE



StaffordAllenS

STAFFORD ALLEN & SONS LIMITED, WHARF ROAD, LONDON, N.1. Telephone: GLerkenwell 1000



“No—there’s a big difference, Mr. Baxter . . .

. . . as you will remember, in protamine zinc insulin, the action of the insulin is modified by the presence of a foreign protein, protamine. In contrast, I.Z.S. contains no protein or peptide material other than the insulin itself. That is its great advantage over other insulins. You see, gentlemen, the action of I.Z.S. persists for the required period by appropriate adjustment of the particle size of the insulin zinc compound. It is because the effect of I.Z.S. is entirely independent of any modifying protein, that allergic reactions following its use are virtually unknown. Any other questions?”

I.Z.S. A.B. Vials of 10 c.c.
40 or 80 units per c.c.

I.Z.S. (Amorphous) A.B. Vials of 10 c.c.
40 or 80 units per c.c.

I.Z.S. (Crystalline) A.B. Vials of 10 c.c.
40 or 80 units per c.c.

Insulin
Zinc
Ssuspension **A.B.**



Joint Licensees and Manufacturers:

ALLEN & HANBURY LTD
LONDON E2

THE BRITISH DRUG HOUSES LTD
LONDON N1



Caffeine

Caffeine Sodium Salicylate

Caffeine Sodium Benzoate

Caffeine Citrate

Theophylline

Theophylline-Ethylenediamine

Oxyethyltheophylline

Dihydroxypropyltheophylline

Oxypropyltheophylline

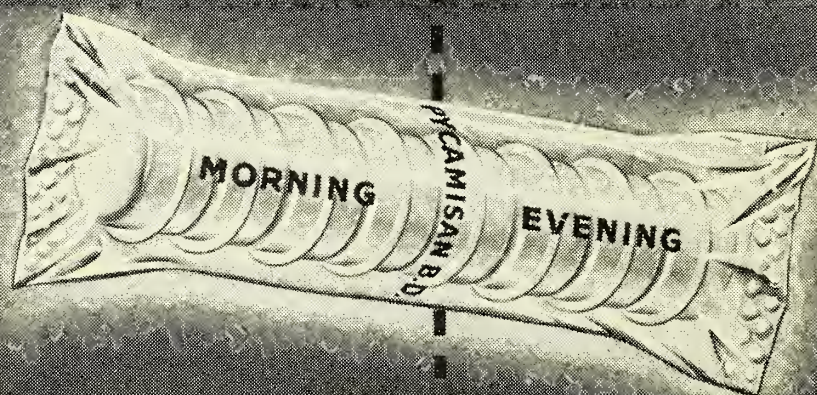
8-Chlorotheophylline



C. H. BOEHRINGER SOHN · INGELHEIM AM RHEIN

PYCAMISAN B.D.

New PAS+INAH
presentation
for
twice-daily
dosage



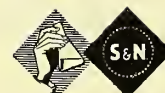
These 5 advantages make T.B. treatment
easier for both doctor and patient

- a smaller cachet, which is easier to swallow.
- a safer cachet, because it is wet-sealed, so that patients cannot tip out the contents with consequent risk of wastage or making themselves feel sick.
- twice-daily dosage, which means there is no midday dose to 'forget.'
- one day's supply in each tube, marked 'morning' and 'evening' to tell the patient when his next dose is due.
- new technique for swallowing cachets, described in a leaflet in each box (extra supplies available on request).

Because of these advantages, the patient is more likely to understand and stick to this simple regimen with PYCAMISAN B.D. PYCAMISAN B.D. is an addition to the present Pycamisan range, but its popularity may make it possible to reduce the range.

PYCAMISAN B.D. cachets each contain 1.5 G. Sodium PAS B.P. and 37.5 mg. Isoniazid B.P.

They are wrapped in polythene tubes of eight, providing a total daily dosage of 12 G. PAS and 300 mg. INAH, and are available in boxes of 240 (one month's supply) and 480 (two month's supply).



Smith & Nephew Pharmaceuticals Limited

WELWYN GARDEN CITY, HERTFORDSHIRE.

MATTHEWS AND WILSON

For Your **TABLETS**

We have long experience in the
FORMULATION AND MANUFACTURE
of medicinal tablets of all types for
pharmaceutical organisations, hospital
authorities and proprietary houses,
both at home and for most countries
of the world—All standard B.P., B.P.C.,
N.F. Tablets are stocked for
prompt delivery

*Customer's Materials Processed
Home and Export Inquiries Invited*

MATTHEWS & WILSON LTD.

Larkhall Works, Morrish Road, London, S.W.2. Tel: TULSE HILL 5881/2

6/- best-seller!



The Lastonet Metatarsal Pad is by far the best on the market at the very reasonable retail price of 6/- per pair. Its chamois-covered foam rubber pad, held comfortably in place by a band of light, airy Lastonet, relieves arch strain and tired feet. Top quality, low price — and an excellent profit margin into the bargain. Your price—24/- per $\frac{1}{2}$ dozen pairs.

Lastonet

METATARSAL PADS

Q.T.2

LASTONET PRODUCTS LIMITED, CARN BREA, REDRUTH, CORNWALL

**AN AQUEOUS ISOTONIC SOLUTION
INDICATED IN RHINO-PHARYNGEAL INFECTIONS**



(Sch. IV)

Available through all wholesaler houses, and being vigorously introduced to the Medical Profession

Packings, your price :	33 cc. bottle	36/- per dozen
Dispensing packs :	8 fl.oz. bottle	7/6 each
	80 fl.oz. bottle	46/3 each
Retail price :	33 cc. bottle	4/- each

BAILLY LTD., LONDON

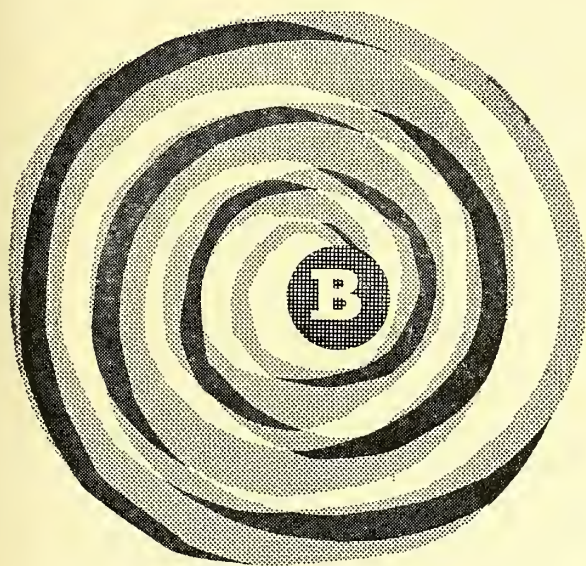
Sole Concessionaires:

Bengue

& CO. LTD.

MOUNT PLEASANT · WEMBLEY · MIDDLESEX





In the pharmaceutical industry

Boric acid has long been acknowledged as one of the most versatile antiseptics available, and is used in many modern talc preparations. In ointments, dressings, eye lotions and similar products, boric acid maintains and extends its traditional place on the pharmacist's shelf.

more ideas begin

with BORON

In many other fields too, boron progress contributes to improved techniques, better products and more economical processes. Whether you are interested in new or established uses of boron products, our Technical and Development Departments will be pleased to help you.

**BORAX
CONSOLIDATED
LIMITED**

Borax House · Carlisle Place · London SW1 Tel: VICToria 9070

20 MULE TEAM Regd. Trademark



TGA BX173B



THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

The weekly newspaper for pharmacy and all sections of the drug, pharmaceutical and fine chemical, cosmetic, and allied industries

Official organ of the Pharmaceutical Society of Ireland and the Pharmaceutical Society of Northern Ireland

Volume 172

November 28, 1959

No. 4163

CONTENTS

A Single "Control of Drugs Act" ?	474
Correspondence	485
Death from an Overdose	473
Dihydroergotamine Tartrate	482
Hospital Service Problems	487
Human Anthrax Vaccine	476
Leading Articles :	
An Approach to Responsibility	479
Overseas Trade in October	480
Medical Abstracts	481
New Books	481
New Look in French Chemicals	483
New Products and Packs	471
Pharmaceutical Society of Ireland:	
Council Meeting (concluded)	480
Pharmacological Research in 1958	488
Progress in Export Markets	476
Soil Micro-Organisms and Growth	477
Topical Reflections	469
Ulster Associates' Section	478
100 Years Ago	484
Branch Events	476
Business Changes	472
Coming Events	493
Commercial Television	494
Company News	472
Deaths	473
In Parliament	472
Irish News	468
News of the Week	467
Overseas News	469
Overseas Visits	473
Personalities	473
Photographic Notes	471
Price Changes	494
Print and Publicity	494
Recent Research	481
Trade Marks	491
Trade Notes	470
Trade Report	491
Wills	493
World Trade	478

INDEX TO ADVERTISERS, Pp. 5 & 6.

Classified Advertisements, p. 50.

PUBLISHED BY
MORGAN BROTHERS (PUBLISHERS), LTD.,
at 28 Essex Street, Strand, London, W.C.2

Telephone: Central 6565

Telegrams: Chemicus, Estrand, London

WOLVERHAMPTON: 89 Woodland Avenue, Tettenhall Wood.
GLASGOW: 160 Nether Auldhouse Road, S.3. Phone: Langside 2679.
LEEDS: 16; 32 Wyndford Rise, West Park. Phone: Leeds 67 8438.

ANNUAL SUBSCRIPTION

which includes The Chemist and Druggist Diary and Year Book, £2 10s. Single copies one shilling each.

**NEW**

FERSAMAL SYRUP

does the
disappearing
trick
every time



Following highly successful Fersamal Tablets comes FERSAMAL SYRUP, specially prepared to appeal to infants and children. For them it has a flavour and colour quite untypical of iron tonics. For you it will also do the disappearing trick—from your counters, just as fast as you can display it. Like the tablets, Fersamal Syrup contains ferrous fumarate, has a high iron content and is exceptionally well tolerated.

FERSAMAL SYRUP

In 6 fl. oz. bottles Retail Price 5/6½ (inc. P.T.)

Trade Price 42/- per doz., plus 10/6 P.T.

the iron tonic with the juicy-fruity taste

Fersamal is a Glaxo trade mark



GLAXO LABORATORIES LTD., GREENFORD, MIDDLESEX BYRON 3434

Subsidiary Companies or Agents in most countries

The CHEMIST AND DRUGGIST

Volume 172

NOVEMBER 28, 1959

No. 4163

Hospital Costs

RETURNS FOR 1958-59

FOR the second year the costs of some 250 large hospitals have been calculated on the new detailed system of costing that was introduced on April 1, 1957. The results have been collated and published in the Hospital Costing Returns, year ended March 31, 1959, Volume 1 (H.M. Stationery Office, 35s.). The latest returns comprise a cost summary (showing the in-patient cost per week and, except for hospitals where patients remain for long periods, the cost per case), together with separate cost statements for wards, out-patient (including casualty) departments, and eleven other departments. The information enables the authorities in the hospitals to compare their own costs with those of other hospitals in the same category. Some of



SCOTTISH GOLFERS DINE: Group photographed at the annual dinner, held in Edinburgh recently of the Scottish Chemists' Golfing Society.

IN-PATIENT PER WEEK				OUT-PATIENT PER ATTENDANCE			
HOSPITAL CLASSIFICATION	DRUGS	DRESSINGS	INDIRECT DISPENSARY EXPENSES	DRUGS	DRESSINGS	INDIRECT DISPENSARY EXPENSES	
Type 1. Acute	s. d. 16 1	s. d. 5 8	s. d. 3 11	s. d. 1 4	s. d. 5	s. d. 4	
Type 2. Mainly acute	13 1	4 2	2 11	1 4	4	4	
Type 3. Partly acute	10 5	3 7	2 8	1 4	4	6	
Teaching Hospital, Acute, London	20 9	6 3	5 8	2 0	4	6	
Teaching Hospital, Acute, Provinces	20 10	6 9	5 7	1 2	5	4	

the information relating to costs of drugs and dressings is tabulated above. The remaining 2,000 National Health Service hospitals are operating a less detailed system of costing and their costs for 1958-59 are to be published shortly.

New Professions

BILL SUBMITTED TO PARLIAMENT

CHIROPODISTS, dietitians, medical laboratory technicians, occupational therapists, physiotherapists, radio-graphers, remedial gymnasts, and speech therapists are each to have their own professional body known as the Chiropodists Board, the Dietitians Board, etc., to provide for the registration of members, and the regulation of professional education and professional conduct. The coordination and supervision of the Boards is to be carried out by a Council of Professions Supplementary to Medicine composed of twenty-three members: four appointed by the Privy Council, one by the Governor of Northern Ireland; four appointed jointly by the Minister of Health, the Secretary of State for Scotland and the Minister of Health and Local Government of Northern Ireland; eight representing the individual

boards; three representing the English Colleges; two appointed jointly by the Scottish Corporations and one person appointed by the General Medical Council. Only registered persons would be entitled to use the relevant title—State Registered Chiropodist and State Registered Dietitian, and penalties are laid down for improper use of titles. Names will be removed from the register for "infamous conduct in any professional respect" and criminal offences, etc., after a preliminary investigation by an investigating committee and a hearing by a disciplinary committee. There is a right of appeal against removal from register, to the Judicial Committee of the Privy Council. These details are set out in the Professions Supplementary to Medicine Bill (H.M. Stationery Office, 1s. 6d.) issued recently.

Increased Discrimination

CUSTOMERS' LOST FAITH

WITH goods and services becoming increasingly complex many customers believed they could not rely solely on the information given by manufacturers and traders said Mr. Caspar Brook, director, Consumers' Association, at the fourteenth National Conference of the

British Institute of Management at Harrogate recently. "It is interesting to step aside for a minute to see why, all of a sudden, many consumers have taken it into their heads to do their shopping as carefully as the industrial purchasing officer is obliged to do if he is to keep his job in the firm that employs him," said Mr. Brook. He was addressing the conference on "The Discriminating Consumer." "I think this is because a good deal of the ever-increasing flood of advertising and sales promotion material is misleading, and because people have increasingly lost faith in the advice they get at the point of sale, that is, from the shop assistant." There were two organisations in this country that tested consumer goods from the consumer's point of view and reported the results to their members. They were the Consumer Advisory Council of the British Standards Institution, and the Consumers' Association. There had been no prosecution for libel or slander of goods. "Manufacturers by and large have expressed themselves as satisfied that what we are doing is done without an axe to grind and is done as well as our resources permit," said Mr. Brook. The greater discrimination of the consumer would affect the design, the retailing, the price and the after-sales service of products.

"Outer Seven" Approved

TARIFF CUTS FROM JULY 1, 1960

THE text of a convention establishing the European Free Trade Association (known also as the "Outer Seven" to distinguish them from the six countries in the European Common Market), was initiated by ministers of the seven countries (Britain, Austria, Denmark,

Norway, Portugal, Sweden and Switzerland) in Stockholm on November 20. If signed and ratified by the various Parliaments the trading group should operate from January 1, 1960, and the first 20 per cent. tariff cuts from July 1, 1960, with annual cuts of 10 per cent. thereafter.

Research Investment

OVER £5 MILLIONS IN 1958

MEMBERS of the Association of British Pharmaceutical Industry, in their research establishments in Britain, spent £5,053,146 in 1958 on the development and discovery of new drugs. The industry employed 1,200 graduates and 2,186 non-graduates on the work, and many companies were able to call on the research resources of overseas associates, whether parent or subsidiary. In addition, £221,300 was given to independent organisations for the furtherance of medical and pharmaceutical research projects, from which the donors would not receive exclusive benefit, this figure does not include grants made by the Wellcome Trust. Those figures are disclosed by a survey recently completed by the Association. It shows that the industry has nearly doubled its expenditure on research since 1953.

Hospital Supplies

GUILD COMMITTEE INVESTIGATION

A SUBCOMMITTEE of the Council of the Guild of Public Pharmacists has investigated the purchasing and supplies functions of chief pharmacists. Replies to a questionnaire circulated by the committee revealed that many orders prepared by pharmacists for drugs and dressings were countersigned by other officers in the service and that not all pharmacists see the invoices for the goods they have ordered. The Committee's report, which has been discussed with members of the Ministry of Health, stated that the professional responsibility of the pharmacist for ensuring that pharmaceutical supplies were of a satisfactory quality could not be divorced from his functions as a pharmaceutical supplies officer.

Student Exchanges

INCREASED FACILITIES

THE report of the International Association for the Exchange of Students for Technical Experience for the year ended September 1959 shows an increase in the number of British students travelling overseas. In 1958, 774 students went abroad under the scheme, against 837 in 1959. Pharmacy, however, failed to send any students under the scheme in either year and in 1959 received one overseas student, against two in the previous year.

Prescription Writing

BAD EXAMPLES TO BE REPRODUCED

EXAMPLES of bad hand-writing by doctors when making out prescriptions are to be collected by the Cheshire Executive Council and reproduced for circulation to medical practitioners. That was agreed at the meeting of the Executive Council at Crewe, recently.

IRISH NEWS

THE REPUBLIC

Irish Drug Association

NO DECISION ON PRESS OFFICER

THE Irish Drug Association has left in abeyance a suggestion that a Press relations officer should be appointed. The subject was discussed at a meeting of delegates from the various local associations, held in Dublin on November 8. Delegates, who attended from all parts of the Republic, were welcomed by the president (Mr. Phil McAuliffe) who reviewed the progress made by the Association since the last delegate meeting. The president said that at the annual meeting of the Association he commented rather strongly on the action of a particular firm, and his remarks were given prominence in the trade Press. He would like members to know that it was not the Association's policy to take an unfair advantage of any particular firm, and he welcomed the opportunity of dispelling any notion that the firm in question had been in any way discourteous to the Association.

The president referred to the possibility of a Press relations officer being appointed by the I.D.A. When a somewhat similar appointment had been mooted by the National Pharmaceutical Union in England the matter had to be deferred owing to a difference of opinion among the members. Divergent views were expressed by delegates on the advisability of setting up such a post and the matter was left in abeyance. Much of the three-hour session was taken up in discussing various motions put forward by local associations, and the president intimated that the matters discussed would be brought before the Pharmaceutical Society of Ireland, and the Wholesale Drug Federation of Ireland. A lengthy discussion took place on the compilation of an approved list of veterinary-product manufacturers and it was agreed that the opinions of local associations should be sought on the matter by representatives. It was agreed to hold the next delegate meeting in the Spring.

Customs Duty Questions

WHAT FORMER MINISTER SAID

THE duty on the importation into the Republic of medicines, tablets, etc., was again raised in the Dail on November 19, when Mr. D. O'MALLEY (F.F.), asked the Minister of Health if his Department had been consulted at any time with regard to it, and what decision had been arrived at or recommended. The Minister (MR. SEAN MCENTEE) said that his Department had been consulted by the Department of Industry and Commerce in February 1955 and further consultation with that Department had taken place in February 1956. On both occasions no objection had been raised to the imposition of the duty, on the understanding that the prices of home-manufactured tablets did not materially exceed those of similar products manufactured elsewhere, and that there would be no hindrance to or interruption of the free importation of tablets that could not be properly manufactured in the Republic.

The Department of Industry and Commerce had again consulted his Department on that matter in February 1958, when he indicated that he was in agreement with the views previously taken by his predecessor.

MR. O'MALLEY: Does the Minister now tell the House that Deputy Norton, when Minister for Industry and Commerce, sent a request to Deputy T. F. O'Higgins, then Minister for Health, who agreed to the proposals which have now been made? Is the Minister aware that his predecessor agreed to these proposals, and that on October 22 last, in this House, Deputy O'Higgins, the former Minister for Health, asked the Minister if he was aware of the grave public anxiety caused by his imposition of the duties, and is he aware that Deputy O'Higgins also said that his primary concern was the sick person? Is the Minister aware that the questions which have been put to him are simply a political racket?

MR. D. O'SULLIVAN (F.G.): Is the Minister aware of, or has he examined, the drastic increase that has taken place in the price of these necessary commodities this week, and is there an association between such increases and the imposition of the duties?—MR. O'MALLEY: That is a separate question.

MR. MCENTEE: I am aware of everything that the former Minister said, but I am not surprised at the inconsistencies displayed by former Fine Gael Ministers. MR. J. M. DILLON (F.G.) said that not until 1959 was the tariff imposed.

Pharmacy Act Fines

UNAUTHORISED SALES

WHEN Michael Connolly, Lisdoonvarna, co. Clare, was summoned at the local court on November 18 for selling a poison (phosphorus in Rodine) in a container not labelled with the name and address of the seller, Mr. J. Gaynor (solicitor to the Pharmaceutical Society of Ireland), who instituted the proceedings, said that sellers of Rodine needed to insure that the name and address of the seller was on the container so that in case of an accident the seller could be traced. Applying the Probation Act to defendant, Justice Hurley ordered the defendant to pay £9 2s. costs and expenses. Mr. Gaynor said that Mr. Padhraigh O'Brian (the Society's inspector) had called at the defendant's premises and been told that Michael Connolly, who had no qualifications as regards the Pharmaceutical Society, was the proprietor. The inspector bought a tin of Rodine, which was extremely poisonous. Rodine could cause danger to people handling it, and the defendant was not legally entitled to sell it. Mr. P. J. Chambers (solicitor for the defendant) said that Rodine was a popular rat poison and could be got in shops all over the country. The wholesaler who supplied it to his client should be in court too. From the moment it was brought to his client's notice he pleaded ignorance of the regulations. It was the first summons of its kind to be brought in Clare. Justice Hurley said that wholesalers should be warned not to sell Rodine to a person not qualified to sell it.

OVERSEAS NEWS**NEW ZEALAND****Free Medicine Vote up £500,000**

AN extra £500,000 for drugs supplied by chemists under the social security medical benefits scheme has been provided by the Supplementary Estimates of Expenditure in New Zealand. That was additional to the £5,350,000 provided and already voted on the main estimates, reflecting the increased number of prescriptions being issued and the increase in the average value. Last financial year pharmaceutical benefits cost £4,973,588.

UNITED STATES**Drug Treatment of Cancer**

DOCTORS, biologists, biochemists and synthetic chemists from all parts of the United States met in Washington, D.C., U.S.A., recently, to report progress made in the treatment by drugs of cancer. While surgery and x-ray, which have been used with variable success for a number of years, continue to represent the best methods of attacking the disease, considerable progress has been made in comparatively recent times by using chemical agents such as those derived from nitrogen mustard and certain antibiotics and hormones. The hypothesis upon which the work is based is that in cancer cells, as in bacteria, specific essential biochemical processes may be interrupted by the drug, thereby bringing about the destruction of the cell. One problem in that approach is to discover a biochemical process in the cancer cell which is not common to that of the normal cells around it. Unfortunately all of the currently available drugs tend to destroy some of the healthy cells of the patient. Papers read at the meeting described the results of clinical studies in which available drugs were used alone or in conjunction with surgery for the alleviation and treatment of malignant disease. Other contributions dealt with the relationship between chemical structure and anti-cancer activity.

NEWS IN BRIEF

DR. M. G. Candau (Director-General of the World Health Organisation) has agreed to remain in office for a further three years from 1960.

WORK on an extension to the Edward Davies chemistry laboratory, University College of Wales, Aberystwyth, is to start in January 1961.

SOME five hundred and fifty outbreaks of fowl pest among poultry flocks have occurred in thirty-nine counties since October 1.

THE United States Atomic Energy Commission and the United Kingdom Atomic Energy Authority have signed a five-year agreement to exchange technical information on advanced gas-cooled reactors.

THE second series of pharmacy extension lectures on sterilisation in pharmaceutical practice commences at the School of Pharmacy, Chelsea College of Science and Technology, at 7.30 p.m., on Tuesday, January 19, and ends on March 8, 1960.

TOPICAL REFLECTIONS**By Xrayser***Commercial and professional*

In his address to the pharmacists of Glasgow (p. 465), Mr. T. Reid (Vice-president of the Pharmaceutical Society) appears to have dealt mainly with the position of what have come to be known as the central-nervous-system drugs. The speaker is reported as saying that the vast majority of pharmacists welcomed the action of the Council in sending out the recent statement concerning such drugs. I should like to think that that is so, despite the numerous letters published in the pharmaceutical Press indicating its unpopularity with many of those who have written. It may be that the correspondents represent a minority opinion, and I have no doubt that Mr. Reid based his statement on good evidence. Such a situation would indicate that the prevailing trend in pharmacy is towards a full realisation that qualification carries with it professional responsibility which outweighs commercial considerations. In asking whether some control of all new drugs was not necessary until they were proved safe, Dr. J. B. Stenlake suggested the only practical means of preventing further examples of what has been too common in recent years. In his reply, I felt that Mr. Reid could have been more forthright and emphatic. He said, presumably in relation to C.N.S. drugs, that television and other methods of advertising "sometimes encouraged the temperamentally wrong people to use them." I should have thought that *only* the temperamentally wrong people could be influenced by such advertising, and that it was aimed specifically at the emotionally unstable, who should, as the speaker said, seek medical advice.

"Pep" pill danger

Just after reading the account of the Glasgow meeting, which suggested that those taking part in the discussion had a well developed sense of responsibility, I was handed a lay Press report of a court case in London which told a tragic story of the dangers of uncontrolled sale of a well-known slimming tablet. A young girl of twenty-one appeared before the magistrate on charges of cheque fraud and false pretences. For two years she had taken increasing doses of the drug, which was taken initially (without medical advice) for slimming. The probation officer stated that the family of the girl was "completely broken by her unspeakable deterioration over the past two years." She had been dismissed from her job because she behaved so strangely, and she had started to get money fraudulently to hide from her parents the fact that she was out of work. In placing the girl on probation on condition that hospital treatment would be undergone, the magistrate showed understanding and humanity. But he said: "You must give up this horrible drug. It is a sad thing that people like you can buy it. But that is a matter for Parliament and not for me." It is a matter for Parliament, but until legislation effects a statutory control, pharmacists will add to their stature by loyally observing the recommendations of their own Society. It may be argued that comparatively few people reach the condition of that unfortunate girl. Comparatively few took opium and cocaine, but legislation was introduced.

Pharmaceutical industry

To those trained in the elementary principles of galenical manufacture during the course of apprenticeship forty or more years ago, the article in your Centenary number by Mr. Allan Duckworth (secretary of the Association of British Pharmaceutical Industry) will offer convincing evidence that times have changed. The pharmacy "back-shop" of the period mentioned was a small (and doubtless uneconomic) edition of the local wholesale and manufacturing house which, in most cases, had grown out of the back-shop of an enterprising and frustrated druggist who wanted to have peace to manufacture galenicals without the everlasting interruption of customers at the counter. From such beginnings we now see departments indistinguishable, to the uninitiated, from the engine-room of an Atlantic liner. We are left with fragrant memories.

TRADE NOTES

A 500-tablet Pack.—Armour Pharmaceutical Co., Ltd., Hampden Park, Eastbourne, Sussex, have made available a 500-tablet pack of Sinaxar.

Additional Packs.—Bengué & Co., Ltd., Mount Pleasant, Alpertown, Wembley, have made available a 4-oz. pack of Metanium powder and a 5-lb jar of Metanium siliconised ointment.

Advertising Gifts.—A brochure illustrating publicity gifts in all price ranges is available from Richard Hochfeld (London), Ltd., 28 Archway Road, London, N.19.

Change of Product Name.—H. E. Helman & Co. (Insecticides), Ltd., 10 Bank Street, Gravesend, Kent, announce that their product Mamex mastitis prophylactic is renamed Bovex.

Price Reduced.—A reduction in the price of Kit-E-Kat cat food, manufactured by Petfoods, Limited, Melton Mowbray, Leics, is being announced with a "massive" advertising campaign that opened on November 23.

Now Tax-free.—Abbott Laboratories, Ltd., 8 Baker Street, London, W.1, announce that, since November 13, their speciality Dicalets Filmtabs dietary supplement has been free of purchase tax. The formula includes eight vitamins and nine minerals.

Gift Pack for Gardeners.—A gardener's gift pack containing an attractively packed range of fertilisers, pesticides, lawn weed-killer and full instructions for their use, plus a free trial pack of a new fungicide, is being issued by Pan Britannica Industries, Ltd., Britannica Works, Waltham Abbey, Essex.

Chocolate Laxatives.—Ex-Lax, Ltd., Slough, Bucks, announce the introduction of two new products for retail sale. Milk chocolate junior Ex-Lax, formulated specially for children, is claimed pleasant to take and is safe and non-habit-forming. It has a colourful pack and an eye-catching counter dispenser. The second new item is a family-size 36-piece Ex-Lax bar.

Exchange of Agencies.—Dr. M. A. Phillips and Associates (consultant division of M. A. Phillips and Associates, Ltd.) have appointed Miyako Kagaku Co., Ltd., 3 Chome, Marunouchi,

Chiyodo-ku, Tokyo, their sole agents and representatives for Japan; and have themselves been appointed sole agents in Europe (except the Soviet Union and associated countries) for Messrs. Miyako Kagaku.

Package and Price Changes.—Myram Picker, Ltd., Hook Rise, Kingston By-pass, Surbiton, Surrey, have made available a large tube of their "Magic Touch" lanolin foundation and a large tube of their cleansing lanolin and moisture creams. Messrs. Picker's "Secret Magic" is now supplied in a mirror compact. Reduced prices now operate for Outdoor Girl propelling eye pencil and refill, and for pearl "nail magic."

Royal Jelly in Drinking Phials.—Ernest Lindsay, Ltd., Finsbury Court, Finsbury Pavement, London, E.C.2, point out that their speciality Apiderm is the only preparation of Royal jelly presented in drinking phials. Sent out in cartons of twelve and twenty-four, the product is claimed excellent for the treatment of exhaustion and of the degenerative conditions incident to old age.

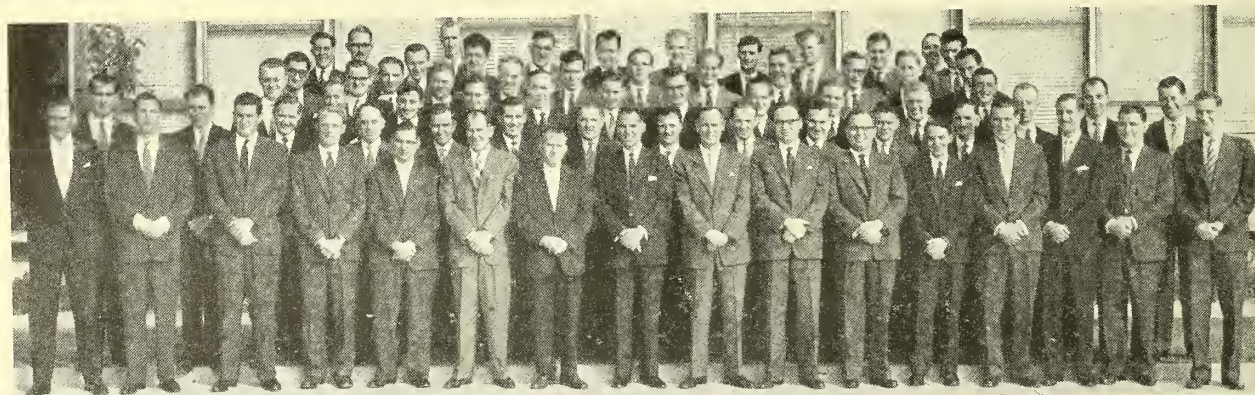
Discontinued.—Boots Pure Drug Co., Ltd., 37 Station Street, Nottingham, have deleted the following products from their range:—Hepastab forte concentrated liver extract (pack of three 1-mil ampoules); injection of hexæstrol, Synthovo brand (box of six ampoules each containing 1 mgm. in 1 mil); injection of T.E.A.B. 10 per cent. solution (box of twelve 5-mil ampoules) and tolazoline hydrochloride injection (box of six 1-mil ampoules containing 10 mgm. per mil).

Gift Wrappings.—Following the launching of their new Christmas gift coffrets, J. C. & J. Field, Ltd., Manchester, are now presenting their standard lines in special Christmas gift wrappings. Both the standard three-tablet box of soap and the standard box of bath cubes have been treated in that fashion. The glossy white wrapping paper has a camellia motif, different colour combinations denoting the three Field's perfumes: the French Flowers wrapping has white camellias; French Pink, pink camellias; and French Moss is identified by red

camellias. The talcum containers have special white cardboard sleeves bearing one large camellia in the colour appropriate to their perfumes, and on the reverse of the sleeve is a "to and from" panel for greetings.

Medicinal Specialities.—Astrapharm, Ltd., Watford, Herts, are the manufacturers of the four pharmaceutical specialities: Aquavit, Ascoxal tablets, Emulax tablets and Secergan tablets. Aquavit presents a combination of vitamins in one tablet. Each contains concentrated vitamin A solution equivalent to 5,000 international units; 800 i.u. of calciferol; 5 mgm. each of aneurine hydrochloride and riboflavin; 30 mgm. of nicotinamide; 2 mgm. of pyridoxine hydrochloride; 8 mgm. of calcium pantothenate; calcium ascorbate equivalent to 100 mgm. of ascorbic acid; and 3 mgm. of tocopheryl acetate. The tablets are indicated for both prophylaxis and therapy in vitamin deficiency caused by poor and unvaried diet, etc.; they are issued in containers of fifty and 250. Ascoxal contains in each tablet 100 mgm. of ascorbic acid; 70 mgm. of sodium percarbonate; and 0.2 mgm. of copper sulphate. Dissolving the tablet in warm water effects a reaction (catalysed by the copper ions) between the ascorbic acid and the sodium percarbonate and the resulting solution is understood to have a powerful bactericidal, fungicidal and viricidal effect. Used as a mouth-wash, Ascoxal is stated to cause a rapid cleavage of mucoid substances in the saliva, stripping the micro-organisms of their protective coating. The pack is a carton of twenty-four tablets. Each Emulax tablet presents 120 mgm. of diethylsodium sulphosuccinate in association with 50 mgm. of Casanthrol cascara sagrada concentrate. The packs are bottles of fifty and 250 tablets. Secergan is a new phenothiazine derivative understood to be effective in the treatment of peptic ulcer. Chemically it is 10-(dimethylaminopropionyl)-phenothiazine methobromide. The tablets are issued in bottles of fifty and 250.

Publicity for Research.—Unilever, Ltd., have produced a booklet "Unilever Research" to give information to students about research work done within the company's organisation. Help is given on wider problems.



SALES CONFERENCE: Group photographed during a recent sales conference held at Upjohn of England, Ltd., at Crawley, Sussex. In the front row centre are Dr. F. T. Johnson (manager of marketing services, Upjohn International Operations, Inc.), Messrs. J. A. Braun (managing director), A. A. Smith (assistant managing director) and A. Downie, F.P.S. (home sales manager).

NEW PRODUCTS AND PACKS

Wrapped and Coded Dressings. — Surgical dressings in film wrappings with end codings for rapid identification are offered by S. Maw, Son & Sons, Ltd., Aldersgate House, New Barnet, Herts.

Sterilised Gauze Dressing. — Johnson & Johnson (Gt. Britain), Ltd., Slough, Bucks, are marketing a new home first-aid adjunct: Steri-Pads. The pack contains four sterilised gauze dressings individually wrapped. Each dressing measures 3 x 3 in.

Tablets Against Insomnia. — A. Wander, Ltd., 42 Upper Grosvenor Street, London, W.1, have introduced



Nebrinal timed-release tablets for the relief of insomnia. Nebrinal is available on prescription only (S.4) in dispensing bottles of fifty and 250 tablets.

A Lotion Containing Hydrocortisone. — Ciba Laboratories, Ltd., Horsham, Sussex, announce the introduction of a new speciality, Vioform-hydrocortisone lotion, containing 3 per cent. of iodochlorhydroxyquinoline and 1 per cent. of hydrocortisone in a 20-c.c. plastic bottle. The combination is also available as a cream and an ointment in 5-gm. and 20-gm. containers.

Germicidal Solution. — Merrell-National (Laboratories), Ltd., 20 Savile Row, London, W.1, notify their invitation to introduce to the medical profession a new speciality Merocet, a pleasantly flavoured alkaline, oral, germicidal solution for the prophylaxis and treatment of inflammations and infections of the mouth and throat. Merocet is a 1:4,000 solution of cetylpyridinium chloride buffered with sodium phosphate and may be used as gargle, spray or mouthwash. It is claimed effective against a wide variety of organisms frequently present in the mouth and throat and combines "15-second effectiveness" with prolonged germicidal effect. It is available in a 4-oz. bottle.

Sulphamethoxypyridazine. — Parke, Davis & Co., Ltd., Staines Road, Hounslow, Middlesex, announce the availability, from December 1, of Midicel suspension, a butter-scotch flavoured suspension of N¹-acetyl sul-

phamethoxypyridazine, containing in each 5 mls (one teaspoonful) the equivalent of 250 mgm. of sulphamethoxypyridazine, Parke-Davis. The pack is a bottle of 2 fl. oz. Midicel, already available as tablets, is a low-dosage sulphonamide claimed clinically effective in a variety of infections responsive to sulphonamide therapy. The suspension is particularly designed for paediatric use, but is also suitable for adults who are for any reason unable to take tablets.

Bath Crystals. — André Philippe, Ltd., 16 Cosway Street, London, N.W.1, have launched a new speciality, No. 21 bath crystals, in rose, lavender, verbenal or Cologne. The gift pack is a plastic-topped, wide-mouthed, polythene bottle with ribbon bow.

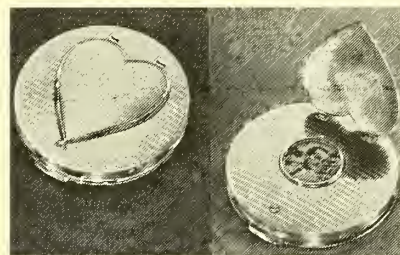
Eye-shadow Stick. — Rimmel, Ltd., 146 New Bond Street, London, W.1, have added to their "Beauty on a Budget" series a new product: "Frosted eye-shadow stick," available in frosted green, frosted blue, frosted violet and frosted silver. The pack is a clear polystyrene push-up container. Messrs. Rimmel also announce a new lipstick shade: "Plush pink," described as "a warm soft glowing colour."

Perfumed Talcum. — Parfums Le Galion (United Kingdom distributors: R. T. R. Malynn, Ltd., 1 Milk Street, London, E.C.2) announce that they have been able to impregnate talcum powder with their Sortilege perfume. The talcum is presented in a carton of Sortilege green decorated with the Le Galion lace motif. The carton contains 3½ oz. Sortilege-impregnated soap is also available in a 4-oz. bar.



DISPLAY PACK: Insulex, Ltd., 67 Westbourne Grove, London, W.2, are now issuing their bath gloves in the three-colour presentation display pack illustrated.

"Heart" Compact. — The Stratton "heart" compact (548/H) manufactured by Laughton & Sons, Ltd., Warstock Road, Birmingham, 14, has a hinged, domed heart normally held in place by a spring catch. When closed,



the compact has a "sleekly tailored" engine-turned finish. By moving the catch the heart-shaped cover swings up to expose a photograph frame.

PHOTOGRAPHIC NOTES

Self-illuminating Microscope. — Pullin Optical Co., Ltd., 93 New Cavendish Street, London, W.1, are offering "for the serious student" the Stein self-illuminating microscope, which has a four-objective rotating turret giving 100x, 200x, 300x and 400x magnifications. The microscope is supplied complete in fitted wooden case with three plain slides and batteries in base.

Home Photography Booklet. — Johnsons of Hendon, Ltd., Hendon Way, London, N.W.4, announce the publication of the fifth edition of their booklet "Home Photography" by A. R. Pippard, B.Sc., and Kevin Macdonnell. The booklet, which contains an alphabetical index, comprises 104 octavo pages printed partly in two colours and with numerous half-tone illustrations. It is for sale by photographic dealers at 3s. per copy.

Cameras Without Quota. — With the lifting of all restrictions on the importation of photographic goods, AGFA, LTD., 27 Regent Street, London, S.W.1, advise that supplies of the full range of Agfa cameras and accessories will soon be available. A revised comprehensive price list of all Agfa products is in course of preparation. — KODAK, LTD., Kingsway, London, W.C.2, are arranging to import from Stuttgart, Germany, as quickly as possible, supplies of the full range of Retina cameras, supplementary lenses and other accessories.

Exhibition of Colour Plates. — An exhibition of colour photographs made by the first six holders of Kodak colour scholarships during their three-month course in America this summer is being held at Kodak House, Kingsway, London, W.C.2, December 1-12 (9.30 a.m. to 5 p.m. Monday to Friday; 9.30 to 11.30 a.m. Saturday). The exhibition, admission to which is free, is being opened by Lord Brabazon of Tara at a private view on November 30. It includes 16 x 20-in. prints on Ektacolor print paper made from 4 x 5-in. and 8 x 10-in. Ektacolor negatives and colour transparencies in a range of sizes. The three-month course of the scholarship holders included lectures at an advanced theoretical level and much practical work. Part of the training was at the Rochester Institute of Technology. The Kodak colour scholarships to America are awarded annually, and applications for the six to be awarded in 1960 must be received by February 29, 1960. Applications and requests for details should be addressed to: The Secretary, Kodak, Ltd., Kodak House, Kingsway, London, W.C.2.

IN PARLIAMENT

By a MEMBER OF THE PRESS GALLERY, HOUSE OF COMMONS

THE Secretary of State for the Colonies was asked by MR. J. A. BIGGS-DAVISON what was being done to increase the yields of pyrethrum in Kenya and to develop new uses and markets for the insecticide. MR. J. AMERY (Under-secretary of State for Colonial Affairs) in a written reply on November 17 said the Kenya Government operated a Pyrethrum Research Station, and the Kenya Pyrethrum Board a research laboratory whose work included efforts to increase yields. The African Pyrethrum Technical Information Centre administered by the Pyrethrum Board maintained a European centre in London to develop new users and markets for pyrethrum based insecticides.

Purchase Tax

The annual yield of purchase tax on perfumery, cosmetic and toilet preparations would be reduced by about £7 millions a year if the tax were reduced from 50 per cent. to 25 per cent. said MR. A. BARBER (Economic Secretary, Treasury) on November 19 when replying to a question by MR. B. JANNER.

Agricultural Chemicals

Later MR. GODBER, replying to the same questioner, said that three units of the Medical Research Council were engaged on research into the effects on human health, both acute and cumulative, of chemicals used in agriculture. Research was also undertaken by the manufacturers.

Arsenical Weed Killers

CONSIDERATION was being given to the position of arsenite sprays under the voluntary notification scheme operated in conjunction with the agricultural chemical industry for securing the safe use of toxic chemicals, stated MR. J. B. GODBER (Joint Parliamentary Secretary, Ministry of Agriculture, Fisheries & Food) when replying to questions by MR. J. B. EDEN on November 19.

Cod Liver and Fish Oils

LADY TWEEDSMUIR asked the President of the Board of Trade to what extent it was proposed under the Outer Seven trade agreement to reduce or abolish the duties on imported cod-liver oil and fish oils, now standing at one shilling per gallon and 10 per cent. *ad valorem*; and over what period. In a written reply on November 19, MR. F. J. ERROLL (Minister of State, Board of Trade) stated that negotiations for the establishment of the European Free Trade Association were still proceeding. Full details of the Convention would be laid before the House as soon as possible after it had been signed.

A Hospital's Difficulties

MR. S. S. AWBERY asked the Minister of Health if he was aware of the difficulties experienced by the South Western Regional Hospital Board in maintaining an efficient health service because of insufficient financial grants, rising prices and the greater use of ex-

pensive drugs in mental cases. MR. DEREK WALKER-SMITH in a written reply on November 23 stated the amount allocated to the South Western Regional Hospital Board for the current financial year was sufficient not only to enable the level of services at the beginning of the year to be maintained but also to provide for further developments and improvements. He was aware that the Board was finding difficulty in containing expenditure within the amount allocated, but the rate of improvement which could be made in the hospital service must be conditioned by the funds available. He looked to the Board and the hospital management committees in the region to budget accordingly. Prices had remained stable this year but allocations were adjusted as necessary to take account of price variations.

Toxic Sprays in Agriculture

In a maiden speech on November 20, MR. J. FARR called upon the government to set up a commission to examine the problems caused by the increasing use of toxic sprays in agriculture. He said he had been struck by the fact that not only was very little known of the short term effects of toxic sprays upon the countryside but practically nothing was known about the long term effects. MR. J. B. GODBER (Joint Parliamentary Secretary, Ministry of Agriculture, Fisheries and Food) replying said that manufacturers were constantly striving to produce less toxic chemicals "that will do the job." There was already in existence an advisory committee that might be augmented by the appointment of eminent members from medicine, agriculture, chemistry and nature conservancy. During the week the Minister had been discussing the matter with representatives of the Association of British Chemical Manufacturers, the Association of British Manufacturers of Agricultural Chemicals, the Association of Sheep and Cattle Dip Manufacturers and other bodies. He hoped to make a statement soon. Other discussions had taken place with the Minister of Science and the Minister of Health and they proposed to arrange for a small group of scientists to review the situation and to make proposals on whether more research work was necessary.

The "Outer Seven"

MR. DEREK HEATHCOAT AMORY made a short statement in the House of Commons, on November 23, announcing the approval of the Convention establishing the European Free Trade Association.

COMPANY NEWS

Previous year's figures in parentheses

ALLEN & HANBURYS, LTD. — Consolidated profit for year ended June 30 was £650,055, before tax of £314,827. Net profit, after tax, attributable to company included in group figure, £305,152. Ordinary dividend recommended is 30 per cent.

ROLLS RAZOR, LTD. — The company have received from Harley Street Securities, acting on behalf of Equity and Share Co. (London), Ltd., a cash offer for all the 3 million issued one shilling Deferred shares of one shilling per share. The directors intend to accept in respect of their own holdings aggregating 630,069 shares (21 per cent.) and recommend other holders to do likewise.

SOUTH AFRICAN DRUGGISTS, LTD. — Standard Finance Corporation of South Africa, Ltd., announce that their offers for the capital of South African Druggists became unconditional November 19. Acceptances to date represent 70.45 per cent. of shares offered for, and Messrs. Standard now holds 83.36 per cent. of the total Ordinary. Preference acceptances of 629,109 shares represent 44.93 per cent. of issued Preference.

EVANS MEDICAL SUPPLIES, LTD. — At an extraordinary meeting on November 18, the necessary resolutions covering the increase of £300,000 in the Ordinary capital were passed. After allowing for expenses, the proceeds of the issue are estimated to amount to £594,900 to be applied as to approximately one-half in financing the construction of new buildings for manufacturing purposes and the installation of machinery and the provision of additional working capital which the increased manufacturing facilities will require. The balance of the proceeds of the issue will provide increased working capital, the need for which has arisen from the expansion of the business and which has been temporarily provided by bank overdraft. The issue of 1,200,000 Ordinary shares is not being underwritten.

BUSINESS CHANGES

DOMESTOS, LTD., have set up an export department at College Works, Albion Row, Newcastle-on-Tyne.

JAMIESON CHEMISTS (EDMONTON), LTD., have acquired the pharmacy of V. Mackenzie, Ltd., 560 Hertford Road, London, N.9.

NOEL MORRIS (CHEMISTS), LTD., have opened a branch at 20 East Street, London, S.E.17, trading as Noel Morris (Chemists).

SAVORY & MOORE, LTD., are taking over the old-established pharmacy of H. T. Holme, Ltd., Market Place, Wallingford, Berks, on December 1.

Appointments

ARMOUR PHARMACEUTICAL CO., LTD., Hampden Park, Eastbourne, Sussex, have appointed Dr. J. S. Clarke to represent them in Derbyshire, Nottinghamshire, Lincolnshire, Leicestershire and Rutlandshire, and Mr. W. A. Stone in Eastern Scotland.

EVANS MEDICAL, LTD., Speke, Liverpool, have appointed Mr. A. L. Lees to call on hospitals in an area based on Liverpool, Manchester and the West Riding of Yorkshire. Mr. R. H. Scott has been appointed a chemist representative attached to Evans Medical (Northern Ireland), Ltd., Belfast.

OVERSEAS VISITS

MR. F. HARTLEY (export sales manager, William R. Warner & Co., Ltd.), is leaving for British East Africa to visit the company's distributors in Kenya, Uganda, Tanganyika.

PERSONALITIES

MR. B. T. SHRYANE, M.P.S., manager of the Westgate, Peterborough, branch of Boots, Ltd., underwent a major operation in a London hospital on November 18.

MR. A. G. SHAW, F.P.S., Kingston-on-Thames, was called to the Bar by the Honourable Society of the Middle Temple on November 24. Mr. Shaw is an assistant secretary to the Association of British Pharmaceutical Industry.

MR. S. A. PUCKETTE, M.P.S., Coventry, has been appointed to the examining board of the Victoria College of Music, London. With his wife Mr. Puckette runs a music academy at his home.

MR. J. M. SNOWDEN, M.P.S., manager of the Weymouth branch of Boots, Ltd., for twenty-three years, is retiring in December. Mr. Snowden joined the company in 1923 and qualified in 1927. He was manager at East Grinstead for eight years before taking charge at Weymouth. He is succeeded by Mr. R. C. Lynn, M.P.S.

MR. F. SAINSBURY (deputy clerk to the Reading Executive Council), who recently retired, has received a cheque from Mr. J. R. Butler, M.P.S. (chairman of the Reading Pharmaceutical Committee). A tribute to Mr. Sainsbury's "loyal and conscientious" work was paid by Mrs. A. M. Salzmann (chairman of the Executive Council).

DEATHS

RIDGEWAY.—On October 6, Miss Elizabeth Ridgeway, M.P.S., 45 Ince Avenue, Great Crosby, Liverpool, 23. Miss Ridgeway qualified in 1919.

BULL.—On November 15, Mr. B. A. Bull, F.P.S., 133 Musters Road, West Bridgford, Nottingham. Mr. Bull qualified in 1906. He was appointed production manager of the pharmaceutical department of Boots Pure Drug Co., Ltd., in 1931 and became a director in 1932, a position that he held until his retirement in 1955. Mr. Bull was chairman of the British Pharmaceutical Conference in 1946 and 1947. He was at one time a member of the Poisons Board and had served on committees in connection with the British Pharmacopoeia and the British Pharmaceutical Codex.

KING.—On November 15, Mr. Alfred Alexander King, Edgbaston Park Road, Birmingham. Mr. King,

who was seventy-five, was formerly managing director of Albright & Wilson (Manufacturing), Ltd.

LOBBAN.—On November 16, Mr. John W. Lobban, 44 St. Johns Road, Southport, Lancashire. Mr. Lobban was the North Western Representative for A. & R. Scott, Ltd., 10 Victoria Road, London, N.W.10.

LEWIS.—On Mr. John Henry Lewis, M.P.S., whose death has been previously reported (C. & D., November 7, p. 398), Mr. Mervyn Madge writes: "Mr. Lewis was one of the older and most liked Plymouth chemists. Born and educated at Llanidloes, Wales, he went to London College to qualify and afterwards to South Devon. On the outbreak of war in 1914, he enlisted in the R.A.M.C., and went to France with the Wessex Field Ambulance as a sergeant dispenser. After the war, he became a partner in the old established firm of R. F. Roper, and later became sole proprietor; he was engaged in the business until two days before his death. On coming to Plymouth, he took an active part in pharmaceutical affairs and served continuously on all the local committees, where his sound thinking and good humour earned the

respect of his colleagues. He was a vigorous committee member, but shunned the limelight, and could never be persuaded to occupy the chair of either of the local branches of the Pharmaceutical Society or the National Pharmaceutical Union. In 1957 he was presented with a clock as a mark of esteem when he retired from the Plymouth Pharmaceutical Committee; it was a presentation which he very much valued. He will be sadly missed by those who spent so much time with him in pharmaceutical affairs."

MARSHALL LEIGH.—On November 24, after a long illness patiently borne, Mr. W. Marshall Leigh, managing director of Chemist Supply Co., Ltd., Bournemouth. Funeral in Bournemouth, November 27.

SHEARD.—On November 12, suddenly, Mr. Alfred Sheard, M.P.S., of Morley and Knaresborough, and formerly in business at 9 Leeds Road, Harrogate. Mr. Sheard qualified in 1928.

WATERHOUSE. — Recently at Rainham, Kent, Mr. Frederick Herbert Waterhouse, who qualified as a chemist and druggist in 1899. He was formerly pharmacist at the Royal Naval Hospital, Chatham, Kent.

DEATH FROM AN OVERDOSE

Inquest questions to prescriber and compounder

A PHARMACIST gave evidence at a Romford, Essex, inquest on November 16 into the death of Mrs. Amelia Jones, Billet Road, Chadwell Heath. He was Mr. Bernard McDonna, M.P.S., Emmott Avenue, Ilford, who was acting as relief manager, at the Rose Lane, Chadwell Heath, Essex, branch of London Co-operative Chemists, Ltd., when he dispensed a prescription that called for a powder containing amphetamine sulphate, gr. 3 (instead of 3 mgm.) per dose. Mr. Jones had given evidence that his wife had received from Dr. Victor Storey, Chadwell Heath, a prescription that had been dispensed "at the Co-operative chemists." Two or three minutes after taking a dose of the powder his wife had said she felt giddy and sick; she became unconscious, and a doctor was called who requested an ambulance. As Mrs. Jones was being taken to the ambulance her husband asked what was wrong and was told by Dr. Storey that "a mistake had been made."

Dr. William Walther (pathologist at Whipps Cross Hospital) said he found 18 mgm. of amphetamine sulphate in the stomach and lungs; death was due to an overdose of amphetamine sulphate. Replying to the coroner he said the normal therapeutic dose would be 5 or 10 mgm, but 10 mgm. had been known to be fatal.

THE CORONER: "If you found 18 mgm. in the stomach it indicates that a much larger amount must have been taken?"—DR. WALTHER: "Yes, sir... gr. 3 of amphetamine sulphate would represent about 180 mgm. It is many, many times the fatal dose. It is a very large quantity. But it is fair to say that people have taken 325 mgm. and recovered."

CORONER: "Hmm. I wonder what

sort of people."—"It is variable in its effect."

Dr. Victor Charles Storey said that Mrs. Jones complained of a pain in the left buttock. I diagnosed that the pain was purely muscular." Dr. Storey identified the prescription the coroner showed him as the one he had made out for Mrs. Jones.

CORONER: "Have you prescribed amphetamine in powder before?"—"I have prescribed amphetamine from time to time."

"And how much amphetamine do you normally prescribe?"—"3 mgm."

"How do you write 'milligrams'?"—"Mgms."

"And in this case . . . ?"—"I put 3 grs."

"You know the dose?"—"Yes, sir."

"What was your reaction when you saw the prescription again?"—"I was horrified when I saw it. I saw it at the chemist's."

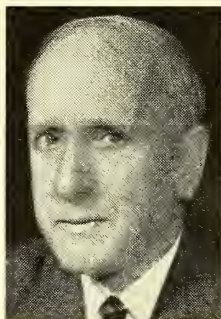
"This mistake was inadvertent?"—"Absolutely inadvertent. It was a slip of the pen."

"What is the procedure in a case like this where a doctor make an obvious error?"—"When one makes a mistake, normally a chemist telephones up and says 'Have you made a mistake' or 'Is this wrong?'"

"And in a case like this?"—"I would indeed expect the chemist to check."

"Did you speak to the individual who dispensed it?"—"Yes. I asked him why he had dispensed it as I had written it. He said they had been very busy that morning."

"Did you get the impression it had not struck him it was a grossly exaggerated dose?"—"I did get that impression, yes."



MR. RODNEY BAX (counsel for Mr. McDonna): "Is it right that amphetamine is not one of the most common drugs in use?"—"Not one of the most common, but quite widely and frequently used."

MR. BAX: "Did you know that Mr. McDonna was a relief chemist?"—"Yes, sir."

Dr. Storey said that, with the exception of the amphetamine drug, the powder he prescribed was as suggested in Lord Horder's prescriptions. During his evidence Mr. Bernard McDonna said he retired in 1958 and had been engaged since as a permanent relief. He was on duty at the time as relief manager and dispenser. He had been at the branch for nearly six weeks, and had had a vast experience in dispensing. He qualified in 1926 and began training in 1910. "Since then I have dispensed every conceivable type of drug."

CORONER: "You have dealt with the bewildering variety of modern drugs?"—"That is the trouble, sir."

Mr. McDonna told the coroner that he was solely in the dispensary on the morning in question and had with him one unqualified dispenser who had been employed there some time.

CORONER: "When you saw the prescription for the first time, did it suggest anything to you?"—"It did not suggest anything to me."

"How did you make it up?"—"With the exception of the amphetamine sulphate the powder was already prepared in a large jar. All I had to do was to work out the amounts needed. I added gr. 96 of amphetamine which I had ground down."

CORONER: "Have you seen amphetamine prescribed in this way before?"—"I have usually seen it made up in 5-mgm. tablets."

"Do you know the normal dose of amphetamine?"—"No, I don't. You have so many doses to remember. I have never had it prescribed before in powder or in any mixture like it. I had dispensed it in tablet form frequently, but not for the past seven or eight years."

In reply to further questioning by the coroner Mr. McDonna said "I am afraid it did not convey anything abnormal to me. In between mixing it, my attention was distracted several times."

CORONER: "But even if you had not been distracted it would still not have conveyed anything to you?"—"It might have done, I might have looked it up."—"What do you do if you think a doctor has made a mistake in a prescription?"—"I have worked for a considerable period during my life in trying to improve the relationships between doctor and chemist. On every occasion I have been in doubt I have rung them. Quite definitely I would always ring them in the case of the slightest doubt."

MR. McDONNA added: "Dr. Storey's writing is particularly bad, and I have great difficulty in deciphering it."

CORONER: "Have you telephoned Dr. Storey with regard to any prescription?"—"Yes I have."—"In an exceptionally high dose it is your legal duty to do so?"—"Yes, sir."

At this point in the hearing Mr. Bax,

for Mr. McDonna, interjected to suggest that, while it was advised practice it was not necessarily on the statute.

THE CORONER: "I was only inquiring. I do not want to tread on the corns of any other court that might consider the matter."—MR. BAX: "My own view is that it is not a duty imposed by statute."

Further questioned by the coroner, Mr. McDonna said: "In thirty-five years it is the first mistake I have made in that direction."

THE CORONER: "I have always taken the view that a chemist always acts in the background as a protector in chief if a doctor gets careless."

MR. BAX to Mr. McDonna: "Amphetamine is not a drug in very common use is it?"—"Definitely not, sir."

Summing up, the coroner said: "The circumstances are perfectly clear. There

is not the slightest doubt that this unfortunate woman died from a very great overdose of amphetamine sulphate. There has been a double error in this case. The doctor had a lapse in prescribing the drug quantity inadvertently. It is the type of lapse that we are all liable to have from time to time; none of us are immune from this type of thing. Here we have a very experienced pharmacist who had never dispensed the drug in powder form before. Not being particularly acquainted with the drug, he dispensed it, as he thought, quite legitimately, as written—as he thought, quite accurately by the doctor. There cannot be the slightest doubt that it was a very serious overdose. This woman died of cerebral hæmorrhage following an overdose of amphetamine, and I shall record a verdict of accidental death."

A SINGLE "CONTROL OF DRUGS ACT" ?

Speaker's suggestion at a meeting of the Scottish Department

THE present position of drug control was irrational because it had grown haphazardly with the changing scene, said PROFESSOR W. L. M. PERRY (Edinburgh University) on November 13. He suggested that there should be a single "Control of Drugs Act," replacing all existing legislation. Professor Perry was giving the inaugural address at a meeting of the Scottish Department of the Pharmaceutical Society of Great Britain. Professor Perry proposed the establishment of a single organisation in which the responsibility of individual physicians and pharmacists would be maintained.

Delegated Responsibilities

The physician was finally responsible for the drug that he gave to the patient; but he had delegated his responsibilities for its preparation to the pharmacist. He ordered the medicine he wanted; the pharmacist was then responsible for selecting the materials and for dispensing them in suitable form. Both were responsible therefore to the patient for his safety. Recently there had been a further split, and a further delegation of responsibility by the pharmacist to the pharmaceutical manufacturer; but the delegation of responsibility by the pharmacist to the manufacturer did not remove the pharmacist's responsibility any more than the delegation of responsibility by the physician to the pharmacist freed the physician of final responsibility. The chain had three links—all of them playing a significant part; one weak link weakened the whole chain.

The General Medical Council was responsible for producing the British Pharmacopœia, the Pharmaceutical Society for producing the Codex and the British Medical Association and the Pharmaceutical Society jointly for producing the British National Formulary. The provision of standards was a function of the British Pharmacopœia and the Codex. All three were involved in providing a formulary. The Codex and the British National Formulary provided information on actions and uses. Professor Perry said "That three separate organisations should be thus

overlapping in this complicated way seems to me a crazy sort of arrangement; and I am quite certain that, despite good efforts at co-operation, the system can only be improved by a radical revision of the administrative structure."

The Codex on principle did not cover drugs in the British Pharmacopœia but covered substances formerly in the British Pharmacopœia but recently omitted. It also tended to be more catholic in its tastes—to admit drugs not regarded as worthy of inclusion in the British Pharmacopœia. The principles of selection for the British Pharmacopœia or the Codex could not be clearly defined.

When one considered the question of the formulary sections of each book, one found that the British National Formulary made every effort to use, wherever possible, those formulas included in the British Pharmacopœia and the Pharmaceutical Codex. The entry in all books was thus identical, save that in the British Pharmacopœia and British Pharmaceutical Codex a standard was set for the preparation and that was omitted in the British National Formulary. That principle thus eliminated much duplication of effort by the group responsible for the British National Formulary. The Formulary did, however, also include a number of preparations not covered by the British Pharmacopœia or the British Pharmaceutical Codex. For those the Formulary set no standards but described the ingredients. Thus the situation arose that a sort of official recognition was given to preparations for which no standards were set.

Correlation of Standards

Both the Codex and the Formulary gave information on actions and uses. Once again the responsibility for preparing this information rested with two different groups of people and there was no close correlation.

There appeared to Professor Perry to be four main problems:—

- (1) the provision of standards for new drugs quickly and *preferably before clinical usage* had

established their value—i.e., before they were known to be either widely used or of clinical value. It was precisely at that early stage that standards are most needed;

- (2) the collection of *all* standards into a single publication—of one or more volumes—by a single authority. There was really no point in differentiating between the standards of the British Pharmacopœia and the British Pharmaceutical Codex;
- (3) the collection into a single publication of the formulary sections of all three books. It seemed pointless to have three separate organisations responsible for fractions of the problem. There might be some point in the publication of the formulary in two editions, namely with and without the standards;
- (4) the collection of the actions and uses sections of the British Pharmaceutical Codex and the British National Formulary into a single publication.

The problem could only be solved by a radical revision of the Medical Acts and by the creation of an organisation made responsible for this entire task. It was fundamental that the individual physician and pharmacist should both maintain some responsibility in this matter, so that adequate representation of the professions on the new organisation was essential. The financial interests of the General Medical Council and of the Pharmaceutical Society and the British Medical Association in the existing books must be looked after. With a single organisation made responsible, the separation of the material, at present in the books, into more rational divisions could begin at once. There were a host of minor problems involved but no major one.

The real difficulty was posed by the question of speed in the provision of standards. The new organisation would have to look most carefully into the question of providing loose-leaf volumes, either as adjuncts to, or as replacements for, periodical bound collections. Professor Perry then went on to the consideration of control measures dependent upon specific direct legislation.

Control by Legislation

There were four main ways in which direct legislation influenced drug control: The provision of standards; the control of manufacture; the control of sales; the control of advertising. The six Acts mainly influencing drug control were: The Pharmacy and Poisons Act; the Dangerous Drugs Act; the Therapeutic Substances Act; the Food and Drugs Act; the Pharmacy and Medicines Act; the National Health Service Act. In addition a small part was played by the Cancer Act, the Radioactive Substances Act and the Venereal Diseases Act.

It was now very difficult, looking at the list of substances covered by the Pharmacy and Poisons Act, to determine any rhyme or reason about the selection of materials for inclusion. The only criterion that was common to all

substances on the list was, perhaps, that someone thought that they should not be on sale to the general public. The reasons for preventing sale to the public varied, one suspected, from real toxicity to sociological undesirability. The machinery of the Poisons Act was cumbersome and related to the handling and selling of poisons by pharmacists. One of its contributions to drug control was exerted through Schedule IV, which restricted the sale of many substances direct to the public by making a prescription necessary. It was for that single restrictive reason that so many substances were subjected to all the other requirements of the Poisons Act. Since almost all new drugs were poisons, there would appear to be a case for simplifying the procedure in regard to the supply of substances on prescription only.

International Implications

The onerous Dangerous Drugs Act had international implications and arose, partly, from a sense of international co-operation. It applied to opium, morphine, codeine, amideone, pethidine, cocaine and cannabis, to synthetic derivatives of them and to most preparations containing them. The control was in no way a control of quality but only of manufacture, sale, possession and distribution. The Dangerous Drugs Act was enforced by the police acting for the Home Office, and the Pharmacy and Poisons Act was enforced by the Pharmaceutical Society. It seemed unlikely that, if legislation were rewritten, there would be any need for two separate Acts. They subserved the same qualitative purpose—to restrict distribution, and differed only in their quantitative effect—namely, in their stringency.

The Therapeutic Substances Act was the only piece of direct legislation which provided standards for drugs. Part II of the Act was not concerned with standards but with sale, supply and administration. It covered almost all the antibiotics, together with isoniazid, corticotrophin and cortisone and allied steroids. Isoniazid and the steroids were not covered by Part I and there was no conceivable rational explanation of their presence other than administrative convenience. The requirements of Part II of the Act were broadly similar to those for the Schedule IV poisons of the Poisons Act, but were not so stringent. On the other hand, there was an additional requirement, namely, that those drugs could only be administered by a registered practitioner. Furthermore, Part II of the Therapeutic Substances Act was enforced by the Pharmaceutical Society authorised by the Ministry of Health and was not enforced by the police, as was the Dangerous Drugs Act.

There seemed to be no reason whatsoever why Part II of the Therapeutic Substances Act should not be consolidated with the Poisons Act and the Dangerous Drugs Act. The problem of Part I of the Therapeutic Substances Act was a little more difficult. The standards which it set down were, wherever possible, identical with those of the British Pharmacopœia; but the Act was catholic and covered *all* pre-

parations containing each active ingredient. The British Pharmacopœia was selective. If, however, the responsibility for *all* standards were vested in a new organisation, it would be quite possible to provide the necessary additional standards so as to provide complete cover of the so-called therapeutic substances.

There would then remain only the problem of the control of manufacture. There might be a case for considering extension of the system of licences for drug manufacture.

The Food and Drugs Act thus affected drug control by providing a mechanism for the enforcement of the standards of the British Pharmacopœia and British Pharmaceutical Codex; and tried — albeit unsuccessfully in some cases — to limit the extravagance of claims made in advertisements.

Under the National Health Service Act the Minister of Health issued the Drug Tariff, in which he could not only determine fees but could also set standards as the main purchaser of drugs. It was in that connection that the classification of drugs by a Committee under Lord Cohen was begun. Although the Cohen classification had no legal form it was a potent means of influencing prescribing habits. That classification of drugs was the only systematic cover that was applied to all drugs both old and new. All the other methods of drug control at present in force were selective and applied only to certain limited categories of drugs. Dr. Perry, repeating his view of the necessity at an early stage of issuing standards for all new drugs, said that, if the responsibility were to be vested in some new organisation, it would seem logical to make the organisation responsible, too, for the classification of new drugs. "It would also seem to me to be highly desirable to require that no new drug should be offered for sale either to the profession or to the public until it had been submitted to the organisation, classified and made the subject of at least provisional standards."

Terms of Reference

The new organisation should be made responsible for deciding whether any new drug should be subject to additional restrictions as to manufacture, distribution and advertisement. The various enactments now in force were all concerned with one or other of those three methods of restriction. Could they not have a simplified single version of them all with the following main categories:—

(a) drugs that could only be manufactured under licence—to include all Therapeutic Substances Act and Dangerous Drugs Act drugs, plus any others that for reasons, related or unrelated to the present principles for inclusion, should be so included;

(b) drugs that could only be sold on a prescription—to include them in Schedule IV of the poisons list, in Part II of the Therapeutic Substances Act, in the Dangerous Drugs Act and in the Radioactive Substances Act—plus many other drugs, such as the anticoagulants and the sex hormones, that should never be administered without medical supervision:

(c) drugs that could only be advertised to the profession and not to the public—to include those in the Pharmacy and Medicines Act and those in the Cancer Act and the Venereal Disease Act—plus any others that should fall in this category;

(d) drugs to which none of those special restrictions apply—probably a dwindling group. If the new organisation had power to classify in that way; to classify according to the present Cohen system; and to issue provisional as well as final standards, new drugs would not come on to the market in the haphazard fashion in which they now appear;

HUMAN ANTHRAX VACCINE

Recommendations by a Committee of Inquiry

EXPERIMENTS in developing a vaccine against human anthrax should be watched and steps taken to produce or procure it for workers who might choose to avail themselves of it if further developments give sufficient proof of its effectiveness, states the Committee of Inquiry on Anthrax in its recently published report (H.M. Stationery Office, 12s.). The report recommends that experimental work in the use of irradiation as a means of disinfecting anthrax-bearing materials should be kept under review.

The task of the Committee set up by the Minister of Labour and National Service in June 1957 under the chairmanship of Mr. R. F. Levy, Q.C., was "to consider the existing legal provisions concerning the importation of goods infected or likely to be infected with anthrax and the precautions to be taken in connection with such imported goods for the protection of the health of persons and make recommendations. The report emphasises the decline in the number of cases occurring and the steep decline in the number ending fatally. Deaths had fallen from twelve a year at the beginning of the century to less

and a large step forward would have been taken to the proper safeguarding of the patient.

"The new legislation that I have envisaged will cut across the present methods of enforcement, and will require new methods to be developed. I am aware that this is always difficult but I maintain that, if no legislation at present existed, a way would be found and I believe that, if we could free ourselves of the idea that change is necessarily bad and profit from what has been learned in the past, we could devise adequate and improved methods of enforcement."

than one a year since 1945. That fall in the number of cases ending fatally was particularly marked since 1945 and might be largely attributed to the discovery of penicillin and other antibiotics, adds the report. The Committee separately examined the industries using wool, goat hair and camel hair; industries using horsehair, bristles, hog and cow hair, etc.; those using hides and skins and those using other susceptible materials such as bones and bone meal. The Committee's recommendations deal, among other matters, with control of imports and compulsory disinfection of certain materials, precautions to be taken in factories and early diagnosis and treatment of the disease.

The Committee emphasise the need for early diagnosis and treatment of suspected cases of anthrax if early recovery is to be assured and fatalities avoided, and suggest that workers exposed to anthrax in their employment should be issued with a card which they should show to a doctor when they report to him with any suspicious-looking lesion, so that he may have in his mind the possibility of their having contracted the disease.

PROGRESS IN EXPORT MARKETS

Glaxo chairman on 1958 trading

IN his review accompanying the accounts for the year ended June 30, the chairman (Sir Harry Jephcott) emphasised the extent to which the company's profitability was now dependent upon the fortunes of its subsidiaries. In the past years the parent company's export sales and sales by overseas subsidiaries had accounted for two-thirds of the total turnover. In the year under review, for the first time subsidiary companies at home and abroad had contributed over half of the total turnover and profitability.

In export markets deterioration in trading conditions was severe and widespread, its effects being mainly felt in penicillin and streptomycin business. Intense competition among producers, particularly for contract business with overseas government agencies, resulted in a sharp fall in prices to uneconomic levels. To secure an adequate share of the business the company adopted every possible device for reducing costs of production and for streamlining methods of selling and distribution. For a period, fermentation facilities were not operated at capacity and a reduc-

tion of profits in the first half of the year was inevitable. Since the beginning of 1959 the overall position had improved; while the market for antibiotics showed some signs of restored stability, some types of business were still being conducted at low and barely remunerative price levels.

Several major steps had been taken to ensure the most efficient and maximum utilisation of overseas facilities following the merger with Allen & Hanburys, Ltd. At home a combined export organisation had been established, and a new subsidiary, Glaxo-Allenburys, was to be formed. Sir Harry added: "In the years to come, we must look to export business in general, and to our overseas companies in particular, for a major part of the continuing growth in sales and profitability that are essential to the efficiency and vitality of the group as a whole."

On research Sir Harry said: "We must view with considerable concern the relatively small expenditure on medical and pharmaceutical research in the United Kingdom compared with the weight of effort now being put into

such research overseas, particularly in the United States, the Common Market countries and Japan. . . . A high proportion of [Glaxo's] present U.K. turnover in ethical medical specialities arises from products introduced within the past five years. Five years hence the proportion will be still higher and many of the products now of major importance may well be obsolete. This is a distinguishing feature of pharmaceutical trading and the one that leads to our preoccupation with research. Unless we are adequately equipped, technically and scientifically, we cannot expect to hold our own in this field."

The year end group balance sheet shows an expansion in fixed assets to £10.2 millions (£9.4 millions) with outstanding commitments of £2.3 millions (£1.18 millions). For accounts see C. & D., October 10, p. 290.

BRANCH EVENTS

LIVERPOOL

Student Nurses and their Training

STUDENT nurses today was the subject of the talk given by Miss M. Kind, S.R.N., S.C.M., Walton Hospital, Liverpool, at the November meeting of the Merseyside Branch, National Association of Women Pharmacists. In Liverpool, said Miss Kind, girls who leave school at the age of fifteen years had the opportunity of attending a technical college for a special course in subjects helpful in leading up to their entry into hospital, and could also visit hospitals and help in the wards to gain experience of the hospital atmosphere. At the age of eighteen girls entered the preliminary training school and at the end of three months, having passed the preliminary examination, the student nurses went into the wards, where a great deal depended on the junior ward sisters for the training and outlook of the students, who had to be taught self-reliance. In spite of the growing academic side of the training, patients still needed care, comfort and constant reassurance in a happy atmosphere. Miss Kind also outlined the recreational facilities for nurses.

WESTERN LONDON

Pharmacy in Russia

IMPRESSIONS of pharmacy in the Union of Soviet Socialist Republics were given during a talk by Mr. T. C. THOMAS, M.P.S., to members of the Western Pharmacists' Association at the Association's November meeting. During his visit to Russia Mr. Thomas found much that was the same in pharmacies in most countries but he also discovered some striking differences. In Russia the doctor was paid by the State but medicines had to be paid for by the patient. The pharmacies were busy, and a wait of two to four hours was usual, though a form from the doctor could give priority to urgent medicines. Medicines were prescribed in small quantities and were less expensive than in Britain. The pharmacist was paid around £110 per month, with a pension of 40-50 per cent. of salary. Dispensing was mostly done seated. The pharmacies had a counter for herbs, which were still in demand. Mr. Thomas showed a colour film he had exposed of buildings, sights and scenes, giving a commentary.

SOIL MICRO-ORGANISMS AND PLANT GROWTH

Discussions on the "rhizosphere" and its importance

A JOINT meeting of the microbiology and agricultural groups of the Society of Chemical Industry recently heard two papers on the soil and its microbiology. The first, "Plant Roots and Soil Micro-organisms," was given by Dr. M. E. Brown (Rothamstead experimental station), who explained the term rhizosphere as used since 1904 to mean the zone of soil subject to the influence of plant roots. All the methods so far used to investigate the rhizosphere were subject to criticism, she said, but consistent observations were usually obtained by individual workers using their own techniques. The speaker showed three slides to illustrate respectively bacteria beneath beet; fungal mycelium growth, beneath vetch; and the growth of actinomycetes, also beneath vetch. Her technique consisted in burying microscope glass slides vertically some inches below the surface of the soil in which seedlings were planted. After about a month, by which time roots had penetrated down to the slides and passed over their surface, the slides were removed, grosser soil particles tapped off and the specimens stained by routine bacteriological methods. Control slides were placed in root-free soil. An index, R/S was calculated, to show the relative bacterial counts under test and control conditions and thus to indicate the degree of biological activity in the rhizosphere.

Selective Stimulation

Rhizosphere flora was influenced, said the speaker, by soil modifications brought about by root excretions. The growth of seedcoat-derived organisms populating the soil adjacent to the roots was controlled by those excretions. Following germination and the emergence of the root, selective stimulation of the seedcoat flora occurred. Lack of microbial growth on the root tips of plants indicated that no excretion had developed at those points. The complete range of flora was established within three days from germination of the seed, remaining until the plant died. Among the constituents of root exudates were amino acids, sugars, tannins and vitamins. Pea-root exudates contained twenty-seven amino acids, among them homoserine, glutamine and threonine. Release of those substances was accomplished by autolysis of cell casts and the bursting of root cells to eject their contents. It had been shown that, during the life of the cotyledons, nucleic acid derivatives were released by the roots. Poor soil appeared to cause the plant to release larger quantities of root exudate.

The rhizosphere population contained a predominance of Gram-negative, non-spore-forming organisms, varying according to pH and also showing a seasonal variation. A system of classifying bacteria upon a basis of their nutritional requirements had been built up, and Dr. Brown referred to her own observation that streptomycin-resistant organisms frequently demonstrated simple nutritional demands. In practice a

basic medium containing glucose and mineral salts was used. Amino acids, vitamins or soil extract could be added to it to provide a range of "selective" medium, but a true selective medium could not be devised, and unfortunately the system did not explain the significance of the organisms occurring in the rhizosphere.

A Complex Subject

DR. R. M. JACKSON (also a research worker at Rothamstead Experimental Station) gave a paper on "The Ecological Significance of the Rhizosphere." It was easier, he said, to observe the effect of plants on soil organisms than the reverse, as soil sterilisation in the latter process destroyed factors essential for comparative observations. Symbiotic or pathogenic relationships were, however, readily defined. Legumes readily exhibited the benefit derived from soil organisms, but the complexity of the subject was illustrated by the fact that three varieties of pea produced three different root exudates and favoured three divergent types of microbial flora. Research had shown that a "wilt" resistant strain of cotton had a rhizosphere bacterial population peculiar to itself. Russian research workers had reported that male plant rhizosphere flora differed from that of female plants in a dioecious species.

Referring to the symbiosis between certain plants and certain fungi, Dr. Jackson showed slides of fungal hyphae, external to a plant, penetrating its roots. A transverse section of a root showed that a fungus acted as a pseudo-parenchyma, with hyphae penetrating the cell structure on the inside and also probing outwards from the root into the soil. Mycorrhiza influenced the nutrition of pine, when grown on a poor soil, increasing the quantity of available nitrogen and phosphorus. Nutritional substances produced by fungi had a significant effect upon germination. In another connection the antibiotics elaborated by basidiomycetes could influence the type of fungi in the soil. It was thought that mycorrhiza might be able to fix nitrogen, and experimental work using apple seedlings growing in sand showed improved growth if inoculation with mycorrhiza were carried out. Orchid/fungi relationships could be demonstrated by observing the growth occurring following the addition of glucose to a sterile sand medium; orchids in sterile sand without glucose showed no growth. Physical effects of fungi on roots included the appearance of nodules on clover roots and the characteristic curving of root hairs in some plants when an indole-acetic-acid-producing fungus was present.

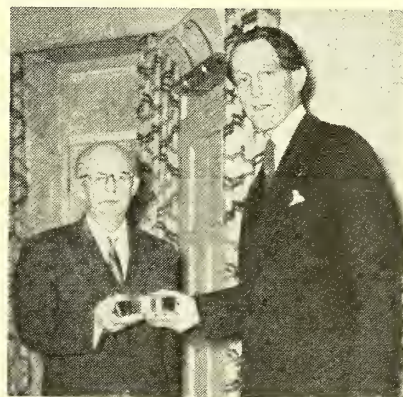
Russian research workers have shown that *Azotobacter* spp. in certain soils containing the requisite amount of water had a considerable effect upon plant yields. Russian confidence in that effect was shown by the inoculation with azotobacter of 10 million hectares (about 5 million acres) of farm land

within the U.S.S.R. The organism was grown on a large scale in tanks, separated and lyophilised before distribution. Farm workers were instructed in dilution procedures, and the liquid was sprayed on to seeds before planting. *Azotobacter* spp. were claimed to produce growth factors in the rhizosphere with an immediate effect upon the roots. *Phosphobacter* spp. were also used, but only secondarily to the azotobacter. Organisms capable of utilising soil silicates had been isolated by other Russian research workers.

Other Activities

The speaker then turned to bacteria and fungi, which synthesised organic acids capable of solubilising phosphates for plant use. He produced a slide showing the penetration of a rape seedling's roots into a calcium-phosphate suspension in agar. Bacterial activity had clearly dissolved the phosphate, thereby making it available to the plant. Other soil minerals mentioned by the speaker as being processed by rhizosphere microbial activity included manganese, which had an effect upon the presence or otherwise of plant diseases. A "nitrogen-greedy" organism could also harm a plant. The toxic effect of a pathogenic substance produced by a fungus was shown to inhibit the germination and growth of radish, lettuce, wheat, beet and tomato. *Penicillium nigricans*, previously thought to be innocuous, had been shown to inhibit the growth of wheat.

By contrast, growth substances were developed by bacteria and, even when they had large molecules, readily passed through the cell-wall structures, the large streptomycin molecule and that of gibberellic acid being translocated in that way. Another positive effect of the rhizosphere microbia was the disease-resistance demonstrated by Canadian research workers to be bestowed on some plants by certain organisms. Research at Imperial College had also proved that biological control of plant diseases could, economic factors apart, replace chemical control.



RETIREMENT PRESENTATION: Mr. W. Scott (a director and the general manager of Optrex, Ltd.) receives from Mr. H. M. Seward (managing director) an engraved silver cigarette box from his co-directors and executives on Mr. Scott's retirement after twenty-one years' service.

ULSTER CHEMISTS' ASSOCIATION

Annual meeting of the associates' section

FULL-TIME students of pharmaceuticals at Queen's University, Belfast, are now eligible for membership of the associates' section of Ulster Chemists' Association. That was unanimously agreed at the section's sixteenth annual meeting held in Belfast, on November 5, Mr. W. T. Hunter (chairman) presiding. The motion giving effect to the ruling was in the name of Mr. R. J. Davidson.

THE CHAIRMAN welcomed all those present, especially the representatives of Ulster Chemists' Association, Mr. J. A. Brown (president) and Mr. W. J. Moffett (vice-president), Mr. A. J. T. Thompson (secretary of the section) read the notice convening the meeting and apologies for absence received from Misses R. Green, M. Meneely, Messrs. J. Kerr, E. G. Mackle, S. Wright.

MR. BROWN spoke of the high regard which the executive committee had for the associates' section, and how conditions in retail pharmacy had improved during the past years. He referred to the recent steps taken to abolish the late night. Mr. Moffett thanked the committee for inviting him to attend, and said that many times he had had the pleasure of attending Joint Council meetings at which representatives of the section were present. He referred to the resignations from the section's committee of Mr. J. Kerr and Mr. E. G. Mackle and paid tribute to those two members for the valuable service they had rendered the section.

THE CHAIRMAN thanked Mr. Moffett for his remarks and the meeting was adjourned for tea, following which Messrs. Brown and Moffett withdrew from the meeting.

The minutes of the fifteenth annual meeting were read and approved. The committee's annual report and financial statement for the year ended September 30 were adopted.

THE CHAIRMAN declared the following five members re-elected to the Committee:—*Pharmaceutical Chemists' Representatives*, R. J. Davidson, J. H. Galbraith, W. Mitchell, A. J. T. Thompson; *Student Representative*, R. G. P. McMullan. The other retiring members, Messrs. J. Kerr, E. G. Mackle and J. Johnston, did not wish to offer themselves for re-election. No new nominations had been received. Mr. W. R. Davidson had been co-opted as a *Pharmaceutical Chemist Representative*, leaving at the present time two vacancies for student representatives.

Chairman's Address

The chairman then delivered his address in which he said that many might wonder if associates were much better off now than sixteen years ago. "I say we have progressed a lot since then. At that time wages for a newly qualified chemist were £4 10s., and after four years' experience £6 based on a forty-eight hour week. Today they are £9 10s. and £12 respectively based on a forty-six hour week. This year we have negotiated three weeks' holiday with pay for all qualified chemists. Some may ask, as indeed has been

done throughout the years, why we are associated in a section with the employers, and would we not be better off in a trade union? It has been decided, and I agree with the decision, that we are better off than in a trade union where a standard pay would be made and the individual could not discuss a wage in excess of it. I would remind both employers and employees that our wages scale is a minimum one which is reasonable for the smallest employer to pay, but that each employee may accept a higher wage.

Reading through the minute books, I wondered if many of the present members knew the origin of the section, so I made some notes and I would like to give you a brief review of the history of the section." After reviewing, and commenting on, milestones in the section's history, Mr. Hunter said "You will agree with me that the progress since 1944 has been good and we shall strive to increase it in the future. Why is there so much apathy among employees towards pharmacy? How many associates attended the annual meeting of the Pharmaceutical Society of Northern Ireland? Very few. Why have we not 100 per cent. membership? It is regrettable to find that it has been too much trouble in the past year for some members to pay their annual subscription, hence we have a falling membership. No doubt those same people will not refuse to take their three weeks' holiday next year, and I am sure with the wages increase last year, they could afford 15s. It would be a nice gesture if every associate were to show his appreciation for our work by persuading at least one new member to join the section in the forthcoming year.

It was with regret that I received the decision of two members not to put their names forward for re-election to the committee, and I feel we cannot let their resignations pass without public expression of our appreciation of their work. I refer to Mr. E. G. Mackle and Mr. J. Kerr. Mr. Mackle was one of the early members of committee when he was co-opted in 1944 as an apprentice, and has since faithfully attended meetings. He was chairman for two successive years, 1950-52. Mr. Kerr was co-opted to the committee in 1951 and was chairman 1952-53. He was the leading member who worked so hard to achieve an accident insurance scheme and one has only to look through the minutes to see the amount of work that involved. I am indebted to him for his advice and encouragement during my term of office. Earlier in the year, Mr. G. P. Taylor resigned from the social subcommittee after being its convener for seven years, and I would again record our appreciation of his services.

I would like to thank members of the social subcommittee for their work during the year in making the annual dance go with its usual swing, and especially for our new and social success, the treasure hunt and barbecue in June.

In concluding my second and final year as your chairman, I would like to thank you for bearing with me, for the co-operation of my committee, the officers who have worked extremely hard, and for their support, and lastly but the most important one, Miss Ramsey, who gets the majority of the work to do. I look forward to seeing a much stronger Section in the coming year."

Discussion followed on various points of general interest including working hours, rota payment, and annual increments for managers and superintendents for years of service in the one pharmacy. On the proposal of Mr. W. T. Strahan, seconded by Mr. J. R. McCoubrey, a vote of thanks was passed to the chairman for his conduct of the meeting and his services during the year; to members of committee; to the auditor (Miss M. Meneely); to the Pharmaceutical Society of Northern Ireland for the use of the rooms; and to Mrs. Wilks for her catering arrangements.

WORLD TRADE

Venezuelan Imports.—Licences will now be required for import into Venezuela of perfume and other "luxury" articles under a Cabinet decision announced recently.

U.S. Firm Link-up in Holland.—A new company to be known as Unilever Emery, N.V. (founded jointly by Unilever, N.V., Rotterdam, and Emery Industries Inc., Cincinnati, U.S.A.), are to build a plant at Gouda, Holland, for the manufacture of raw and auxiliary chemical materials for several industries.

French Import Liberalisation.—Quantitative import restrictions in the French community for purchases in west European countries, the United States and Canada and other countries were removed for a wide range of goods recently. There are three new lists—one for O.E.E.C. countries, another for the United States and Canada and a third for the remaining countries. The list for O.E.E.C. countries includes edible oils, some chemicals, films and solvents. The list for the United States and Canada includes oils and waxes and some chemicals.

Outlook for U.S. Drug Industry.—Overseas markets offer the best opportunity for United States sales growth in the pharmaceutical industry, said Mr. Harry J. Loynd (president, Parke, Davis & Co., Detroit, U.S.A.), at San Francisco on November 19. "I am very optimistic on the future of the pharmaceutical industry in Central Europe, in South America, in Africa, in India, and in some other countries." In the next ten years, "percentage-wise the increase in our business will be larger in overseas markets than it will be domestically," he added. Mr. Loynd expected his company to show an increase in profits for 1959 "in the neighbourhood of 11 per cent.—over last year, while sales should be up about 10 per cent."



The CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

ESTABLISHED 1859

Published weekly at

28 Essex Street, Strand, London, W.C.2

TELEGRAMS: "CHEMICUS ESTRAND, LONDON"

TELEPHONE CENTRAL 6565

An Approach to Professional Responsibility

THE problem of the pharmacist in endeavouring to satisfy his conscience in the matter of sales of the preparations referred to in the statement published by the Council of the Pharmaceutical Society (*C. & D.*, August 22, 1959, p. 80) has not been simplified in any way by the reiteration of the statement without further amplification in a brochure issued by post to all proprietor pharmacists and superintendents of limited companies. Indeed, the passage of time since the statement was first issued in August seems to reveal, in the response of the profession as a whole, a feeling that the method adopted by the Council is seriously at fault in its lack of realism.

Admitting all the good intentions in the world, we can but feel that the safeguards the statement is designed to apply are failing for that reason in respect of those preparations which are in public demand.

The result must be that professional responsibility is having little or no impact of any real effect in the distribution of the preparations for which a demand had previously been created by advertising, particularly the sedatives relying on carbromal. It may be that, unless something more is done, time will show that a serious effort of the Council in this direction has turned out to be nothing more than an attempt to impose upon a distributive function a meddlesome veneer of professionalism. The aspirations of the pharmacist in retail practice are well founded, and it would be disastrous if they were to be undermined by impracticable directives. The majority plainly see the point of the Council's statement, and want to give effect to its intentions. The purpose of our comment is therefore to try and steer the whole idea to a course which achieves those intentions pending the backing of legislation, if and when that is thought necessary. The comment is not made in defiance of the Council, but solely to endeavour to further its purpose on a realistic basis—in short, with all due respect, to put the feet of the Council on the ground. It seems to us that:

1. There are serious objections, which have not been taken into account, to an attempt to control distribution of any substances that impose upon pharmacists unilateral responsibilities in withholding distribution subject to implied threats of disciplinary action and against the weight of public demand created by accepted methods of commercial practice.

2. The problem is to be recognised as mainly one of

public protection against misuse rather than abuse, and the reasonable discriminate usage of the informed person needs to be provided for when the preparations involved include those concerning which technical opinion is not settled and which are in public demand.

3. The extent of the Society's function in this matter seems more appropriately to be one of advising the authorities and the public upon the dangers of misuse or abuse, seeking legal restraint where necessary. Until that is recognised by legislation, the pharmacist cannot reasonably be expected to do more than carry out his legal and professional duty to exercise the care expected of a qualified distributor. But it is a denial of the liberty of the subject to refuse absolutely to supply without discrimination in the interests of protecting a section of the community to whom supply may be harmful until it is established by law that the interests of that section require restraint on the community as a whole. In that way the position will be clarified by limiting the professional responsibility to advice, leaving restraint to be applied by law.

4. The way in which the problem has been presented by the Council to pharmacists puts all the responsibility in the matter on the vendor and none on the purchaser. It does not even frustrate the purchaser, but merely interferes with his source of supply insofar as the preparations in demand are freely saleable on a competitive basis by qualified and unqualified vendors. It is a method that might appropriately be used by an administrative body devoid of any constitutional obligations to a particular section of the community, but is hardly in keeping with the Council's proper relationship with its members. The Council should, we consider, advise members on such matters in a way that leaves it reasonably possible for the advice to have a practical application without prejudice to competitive interests as between one member and another, or as between a member and his employers or suppliers.

5. In matters concerning the sale of goods the commercial interests of the pharmacist cannot be ignored in the development of standards of practice. It is the way in which medicines are sold rather than the actual sale to which ethical considerations are to be applied so long as they are sold on a competitive basis, and it may be considered to be an abuse of disciplinary procedure to use it as an implied threat in the development of an ethical policy which is in effect a restraint on trade, however well intentioned. In this respect it is noted with concern that matters of law and matters of ethics are referred to in the brochure without distinction and that can only be regarded as an unwarranted show of force in relation to the ethical matters.

6. There has been no collateral action to help the pharmacist as between the Council and manufacturers or between the Council and the medical practitioners who are expected to issue prescriptions. The conditions under which National Health Service prescriptions are in fact issued cannot reasonably be ignored before such a statement is presented.

It is therefore suggested that the pharmacist's legal and professional duty of care in the distribution of advertised preparations would more appropriately be met by

- (a) Refraining from encouraging demand by display or by offering for sale any preparation in the list.

- (b) Refusing any demand that comes with unreasonable frequency in quantity or from any obviously irresponsible, or from an unknown, purchaser.
- (c) Ensuring that, when a demand must be met, the purchaser is left in no doubt as to the profession's views by enclosing the package in a special envelope inscribed, say, as follows:—

"CAUTION"

"THE Council of the Pharmaceutical Society of Great Britain has advised pharmacists to warn the public against the indiscriminate self-administration of preparations of the character enclosed. It is recommended that such preparations should only be taken regularly by those advised to do so by their doctor. It is therefore sold on that understanding and the purchaser is solely responsible for its proper use."

Name and address slip.

To assist pharmacists, whether proprietors or managers, who might find themselves in some dilemma in dealing with these preparations for the reasons set out above, the Council might announce that it had prepared a stock of envelopes inscribed as we have indicated, and that they were available at a cost of xs. yd. per 100. The envelopes should be used by the pharmacist alone, exercising his professional responsibility.

It is suggested that the adoption of these methods would rebut any allegations of irresponsible sale and demonstrate the good faith of the pharmacist in carrying out his professional obligations on this matter as advised by the Council so far as is practicable.

Overseas Trade in October

OCTOBER'S exports of drugs, medicines and medicinal preparations from the United Kingdom rose to £3,544,533 from the unusually low total of £2,837,715 in September.

Most of the items for which statistics are published by the Board of Trade (see table) contributed to the rise, for it was the general improvement by all rather than a spectacular jump by a few that brought about the improved position.

EXPORTS				VALUE
				£
Drugs, medicines, medicinal preparations (total)	...	...	...	3,544,533
Vitamins	...	...	...	214,160
Penicillin salts	...	...	...	102,263
Penicillin injections	...	...	...	41,642
Penicillin tablets, ointments, etc.	...	...	...	70,073
Antibiotics other than penicillin	...	...	...	487,999
Quinine	...	...	...	15,550
Alkaloids, excluding quinine	...	...	...	118,529
Aspirin	...	...	...	100,656
Antihistamines	...	...	...	39,317
Antipaludics	...	...	...	86,164
Barbiturates	...	...	...	28,986
Liver extracts	...	...	...	18,532
Ointments and liniments	...	...	...	127,124
Insulin	...	...	...	27,777
Sulphonamides	...	...	...	95,880
Proprietary medicines	...	...	...	1,066,042
Other medicines, unclassified	...	...	...	857,546
Glycerin	...	...	...	22,510
Acetone	...	...	...	34,126
Citric acid	...	...	...	68,587
Salicylates	...	...	...	11,927
Perfumery and toilet preparations	...	...	...	...
Lipstick, face powder, etc.	...	...	...	308,650
Dentifrices	...	...	...	130,775
Toilet soaps	...	...	...	322,785
Synthetic detergents	...	...	...	596,891

IMPORTS						£
Vitamins	...	...	...	...	...	26,917
Antibiotics	...	...	...	...	...	68,258
Alkaloids	...	...	...	...	...	89,406
Proprietary medicines	...	...	...	...	...	44,825
Unclassified medicines	...	...	...	...	...	98,753
Borax	...	...	...	...	...	64,203
Iodine	...	...	...	...	...	56,026
Menthol	...	...	...	...	...	31,406
Essential oils	...	...	...	...	...	...
Bergamot	...	...	...	...	...	14,810
Citronella	...	...	...	...	...	18,362
Clove	...	...	...	...	...	3,430
Geranium	...	...	...	...	...	27,739
Lavender	...	...	...	...	...	40,162
Lemon	...	...	...	...	...	24,963
Orange	...	...	...	...	...	17,084
Peppermint	...	...	...	...	...	91,707
Unclassified	...	...	...	...	...	150,831

Australia was by far the largest single market, purchasing prepared medicines to the value of £365,191. Nigeria was second with £239,743.

Compared with October 1958, exports of medicines to the United States at £167,434 more than doubled in value. Those to Eire fell to £128,556 (from £152,174).

Imports of prepared medicines at £328,159 were well below the monthly average for the first nine months of the year, despite several low values in the first half.

PHARMACEUTICAL SOCIETY OF IRELAND

Concluded from C. & D., November 21, p. 458.

It was agreed that the Licence certificates of the following should be signed and sealed:—Misses Audrey Isdell; Sheila McCready; Catharine Harnett; Ellen P. Shanahan (Mrs. Butler); Theresa McLaughlin and Messrs. Andrew Coleman and Eamon Tierney. Certificates having been submitted, approval was given for the changing in the Register of the names of the following:—Mrs. Catherine O'Sullivan (née Ambrose), Cork; Mrs. Mary T. O'Brien (née Woods), Dublin; Mrs. Mary Henry (née Duffy), Dublin.

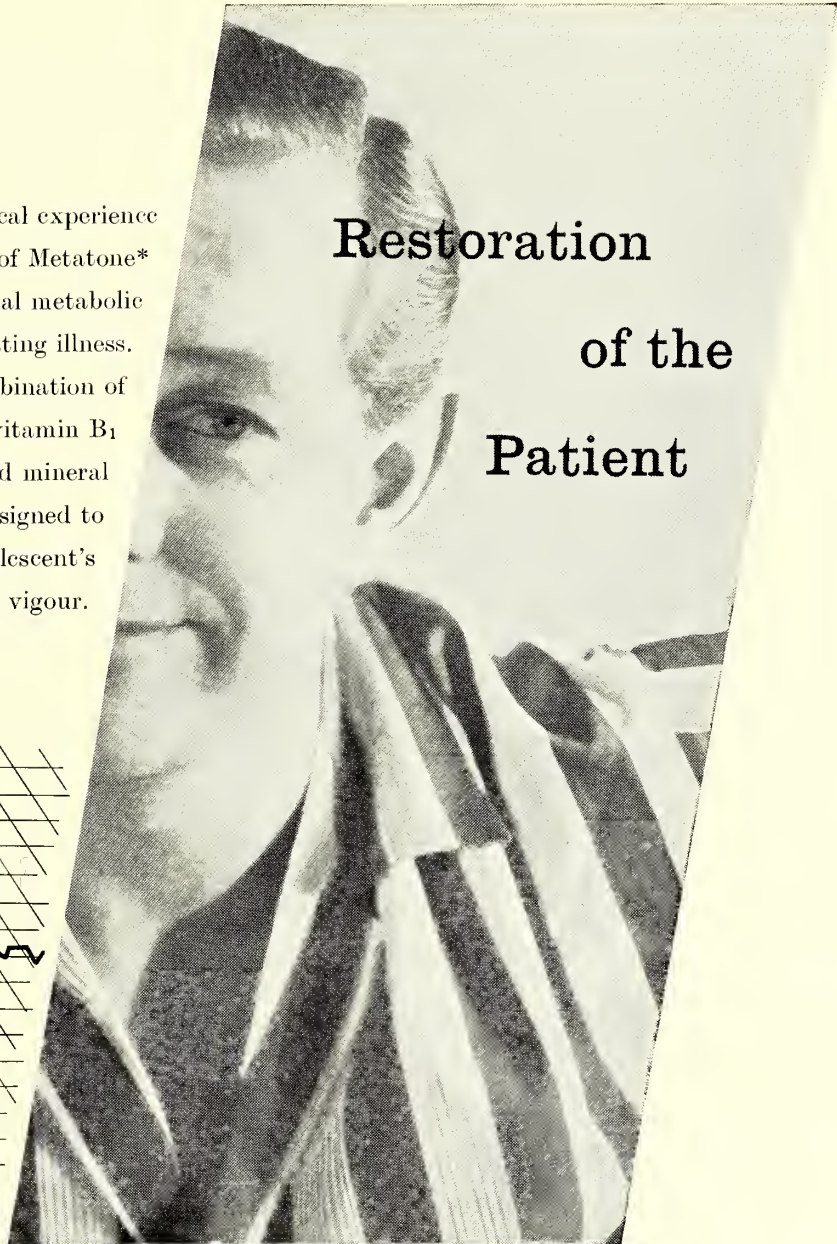
The following change of address were noted:—Mrs. Mary Agnes Donovan (née Lyons), L.P.S.I., to Ballingarry, co. Limerick; Mrs. Mary Henry (née Duffy), L.P.S.I., to 55 Merville Road, Stillorgan, Dublin; Mrs. Mary T. O'Brien (née Woods), L.P.S.I., to 9 College Park, Fortfield Road, Terenure, Dublin; Mrs. Catherine O'Sullivan, M.P.S.I., to Inis Ealga, South Douglas Road, Cork; Dr. T. M. Moylett, L.P.S.I., to 30 Field Lane, Letchworth, Herts; Mr. Myles O'Brien, M.P.S.I., to Magheraboy, Sligo; Mr. Thomas Kissane, M.P.S.I., to 132 Fortfield Estate, Terenure; Mr. Jeremiah C. Kelly, L.P.S.I., to Medical Hall, Newbridge; Mr. H. G. Egan, L.P.S.I., to Loreto, Seaview Avenue, Arklow.

It was agreed that the following should be granted registration in the Pharmaceutical Chemists Preliminary Register:—Messrs. John McMyler; Yunis Ismail Desai; Moosa Essop Kara. The following were granted registration in the Pharmaceutical Assistants Preliminary Register:—Miss Margaret Hickey and Messrs. Anthony Quirke; John J. McEvoy; Michael Duffy; John Dwyer; Thomas Kelly and Michael O'Leary.

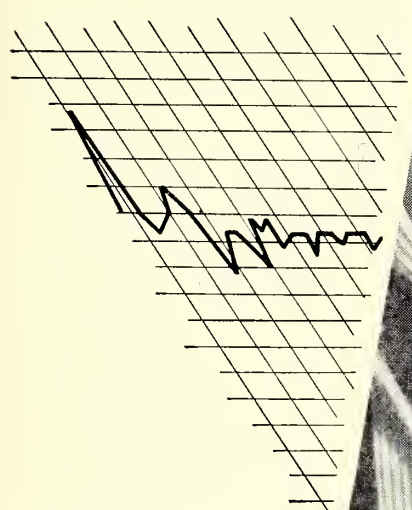
Approval was given for the election to membership of the following:—Mrs. M. T. O'Brien (née Garvey); Miss Ellen Barry; Mrs. Valerie McGeough; Messrs. Gerald Maguire, John D. Fennessy, Thomas O'Dwyer, Brian Raftcry, Richard Purcell. It was agreed that the following should be nominated for membership:—Miss Kathleen Noonan, Main Street, Letterkenny, co. Donegal; Mr. Robert I. Jones, 8 Main Street, Dundrum, co. Dublin; Mr. Jeremiah C. Kelly, Newbridge; Mr. Charles Curtis, 65 Lower Dodder Road, Rathfarnham, Dublin; Dr. W. H. Coen, Athlone; Mr. James Kevin Daly, Dublin; Mr. Thomas J. Nolan, Westport; Mr. John C. Ryan.

Many years of clinical experience have proved the value of Metatone* in restoring normal metabolic function after debilitating illness.

Metatone is a combination of appetite-promoting vitamin B₁ with strychnine and mineral glycerophosphates designed to assist and speed the convalescent's return to full vigour.



Restoration of the Patient



Metatone

*TRADE MARK

Supplied in bottles of 8, 16 and 80 fl. ounces

**for rapid restoration of
normal metabolic function
after illness**

PARKE, DAVIS & COMPANY, Hounslow, Middlesex. Telephone: Hounslow 2361
and at Carfin Industrial Estate, Carfin, Lanarkshire. Telephone: Holytown 326/7 1011

Effective protection against Lamb Dysentery

The Wellcome Research Laboratories were :

* First to determine the cause of Lamb Dysentery.

* First to discover the way to prevent
Lamb Dysentery.

* First to produce the 2 c.c. dose of antiserum.

Issued in bottles of 50 c.c.—25 doses.

* 'Wellcome' brand sells more than any other.



'Wellcome'

BRAND

Concentrated Lamb Dysentery Antiserum

Valuable lambs deserve the best, so recommend
'Wellcome'—the pioneer brand. Lambs must
be injected within twelve hours of birth.

Please keep adequate stocks for your customers.



BURROUGHS WELLCOME & CO. (THE WELLCOME FOUNDATION LTD.)

The Wellcome Building, Euston Rd., London, N.W.1. Tel. Euston 4477 and at 18 Merrion Sq., Dublin. Tel. 65751/2

NEW BOOKS

The Key to Accounting and Costing

J. A. R. TAINSH, B.A., *Charles Griffin & Co., Ltd.*, 42 Drury Lane, London, W.C.2. 7½ x 5 in. Pp. 119. 14s.

THE book has been written for the technical and professional men in all walks of life and for businessmen in large or small companies who require to understand more about the financial side of their business.

Ammonia, Manufacture and Uses

A. J. HARDING, M.A., PH.D. *Oxford University Press*, Amen House, Warwick Square, London, E.C.4 (under auspices of Imperial Chemical Industries, Ltd.). 8½ x 5½ in. Pp. 41. 6s. 6d. (U.K.).

THE book is the second to be prepared by Imperial Chemical Industries, Ltd., with the assistance of the teaching profession, to bridge the gap between chemistry learned at school and that same chemistry as applied in industrial practice. The manufacture of ammonia and its uses under modern industrial conditions are clearly described. The text is interspersed with diagrams and illustrations of latest plants.

Electrolytic Manufacture of Chemicals from Salt

D. W. F. HARDIE, B.Sc., PH.D. *Oxford University Press*, Amen House, Warwick Square, London, E.C.4 (in association with Imperial Chemical Industries, Ltd.). 8½ x 5½ in. Pp. 74. 7s. 6d.

THE book is the third of a series produced by Imperial Chemical Industries, Ltd. It describes the processes and plant used in the electrolytic manufacture of chlorine from salt. After the text there is given in Appendix I, a historical summary of developments from 1800 to 1955. Appendix II, covering four pages, gives an explanation of technical terms and definitions of units. A comprehensive bibliography is also provided.

National Directory of Nigeria

Unimex (London), Ltd., 46 Museum Street, London, W.C.1, 10 x 7½ in. Pp. 316. 52s. 6d. (or 30s. with paper cover).

NIGERIA is currently second only to Australia as the largest market for United Kingdom pharmaceutical exports. The directory (which is a first edition) is devoted exclusively to the trades and professions of that colony. Names and addresses of Nigerian firms, corporations and professional bodies are listed in the alphabetical section. There is also a classified list which includes sections for pharmaceuticals; pharmacies, medical supplies, etc. General information is at the beginning of the directory and Customs Tariffs and statistical data conclude a useful source of reference for the British exporter.

Detoxication Mechanisms

R. T. WILLIAMS, PH.D., D.Sc. *Chapman & Hall*, 37 Essex Street, London, W.C.2. 8½ x 5½ in. Pp. x + 796. 126s.

THE subject of the metabolism and detoxication of drugs, toxic substances and organic compounds is a one on which information is rapidly accumulating. Hence the second edition, revised and rewritten, of this valuable book. The subject is vast, reaching into many as yet unknown regions of biochemistry. The author has, however, compressed the known data into a single clearly written volume. Its presentation is good, and the chemistry of the subject is well explained with the aid of structural formulae, though it is a pity that proprietary and official or chemical names are not differentiated. There are minor blemishes, including a mis-spelling, and the inclusion of a paragraph or so upon Ethynal (p. 174) is open to question seeing that the drug marketed under that name has been withdrawn.

British Glass Industry Directory & Buyers' Guide

SOCIETY OF GLASS TECHNOLOGY, *Iliffe & Sons, Ltd.*, Dorset House, Stamford Street, London, S.E.1. Full cloth bound, size 8½ x 5½ in. Pp. 376. £2.

THE Directory (seventh edition), in its new format comprises four main sections, thumb indexed for quick and easy reference. The catalogue of firms consists of names, and addresses, branch offices and overseas agencies, of

approximately 600 firms engaged in the glass industry with a description of their products or services. A geographical index has been included in that section with firms' names arranged alphabetically under counties or countries thus enabling buyers to find quickly the locality of manufacturers and suppliers. In the buyers' guide section are over 13,000 names of firms alphabetically arranged under approximately 1,200 classified headings. Proprietary and trade names are listed alphabetically with a brief reference to the products to which they relate together with the name of the user. Display announcements appear in a separate section whilst a further section is included giving addresses of and information about industrial associations, trade unions, research organisations and educational institutions, etc. connected with the glass industry.

MEDICAL ABSTRACTS

DIURETIC EFFECT OF HYDROFLUMETHIAZIDE

JONES and Verrier Jones have reported (*Brit. med. J.*, 1959, ii. 928) on the diuretic effect of hydroflumethiazide on twenty-one oedematous patients. Doses of 200-400 mgm. daily produced a good response in seventeen cases. Of the remaining four patients, two showed no response and the others, though the drug initially induced a response, ultimately died. No toxic effects were observed and carbonic anhydrase inhibition was shown to be insignificant. Potassium excretion was to some extent increased but the authors consider that the additional loss of potassium should not occur in view of the lack of effect upon carbonic anhydrase. The results suggest that hydroflumethiazide is weight for weight more active than chlorothiazide.

TREATMENT OF CHRONIC BRONCHITIS

CARNACHEN and Bendall (*Brit. J. clin. Med.* 13, 10), give a preliminary report to determine the effect of chymotrypsin (Lomudase) and isoprenaline (Lamupren) in very fine powder form in the treatment of retained viscid secretions and bronchospasm in chronic bronchitis. The investigation covered 206 "moderate to very severe" cases living in areas where the condition is most prevalent supervised by 60 doctors. At the end of the six-week investigation, 70.9 per cent. showed an overall subjective improvement; 9.2 per cent. showed no change; 2.4 per cent. were worse and 17.5 per cent. were inadequately assessed. In most cases antibiotic and other therapies were provided when required concomitantly with the chymotrypsin and isoprenaline. In some cases, the lack of antibiotic cover, the authors state, might have influenced the results adversely. [Particulars of Lomupren, Lomudase and the disperser, Lomuliser, have been published (see *C. & D.*, February 14, p. 169).]

RECENT RESEARCH

"LABELLING" TESTS FOR ENZYMES

A quantitative *in vivo* fibrinolytic-effect test for proteolytic enzymes is described by Ambrus and others (*J. Am. pharm. Assoc. (Sc. edit.)*, 1959, 5, 298). Previously, the experimental dispersion of thrombosis demanded an estimation by palpation of the clot, visual examination during autopsy, or histological preparation. By the method now outlined, an arterial segment in an anaesthetised dog, isolated by clamps, is cannulated by polyethylene tube and the blood mixed in a syringe with 0.1-0.2 mil of I¹³¹-labelled fibrinogen. After reinjection, 0.1 mil of thrombin in saline is introduced. A suitably placed constricting ligature prevents escape of the blood clot, and thirty minutes later the cannula is removed, along with the clamps. The vessel is placed in a specially constructed lead shield carrying a scintillation counter, which is connected to a radiation rate meter. That registers total count in a predetermined time, and a further connection to an Esterline recorder provides count-per-minute values in graph form. Carboxypeptidase, papain, ficin and crude protease were separately administered by the authors, and the lysis effect upon the blood clot determined by reduction, if any, of the degree of radiation sited at the blood clot. None of the enzymes tested brought about significant lysis and, except with carboxypeptidase, clotting index and fibrinogen levels were lowered to the extent that the blood became incoagulable.

DIHYDROERGOTAMINE TARTRATE

Its properties and its medicinal applications

BY partial hydrogenation of their lysergic acid components the normal ergot alkaloids may be converted into crystalline dihydro derivatives, the hydrogen saturation occurring in one of the five double bonds of the lysergic acid component.

Hydrogenation produces characteristic changes in pharmacological properties. The dihydro derivatives inhibit certain actions of adrenaline more markedly than do the normal alkaloids, not affecting the uterine tone, and, it is claimed, being considerably less toxic. Of the hydrogenated derivatives dihydroergotamine is employed therapeutically as a sympatholytic, the tartrate $[(C_{33}H_{37}O_5N_3)_2C_4H_6O_6]$, molecular weight 1317.49] being used because of the insolubility of the free alkaloid base and only a readily soluble compound being suitable for pharmaceutical purposes.

Dihydroergotamine tartrate occurs as a white, finely granulated powder relatively stable in the crystalline condition and soluble in water and pyridine. Decomposition occurs at about 205° C. (corrected). Loss on drying in a high vacuum is 4-6 per cent.; sulphate ash, less than 0.1 per

20

cent.; specific rotation: $[\alpha]_D^{25} = -56^\circ \pm 1^\circ$ (for a 1 per cent.

D

gm./mil solution in pyridine). The salt requires to be kept in tight containers protected from light.

Pharmacological Action

The central sedative action of the compound is demonstrated essentially by depression of the vasomotor centre, lowering the body temperature and slowing the pulse rate. Only rarely does the compound cause vomiting. In anaesthetised animals (dogs and cats), blood pressure is lowered, and sedation is produced in motor and psychic excitation states. The constrictive action of dihydroergotamine on smooth muscle is considerably less than that of ergotamine. Dihydroergotamine acts as an antagonist to ergotamine and ergobasine by eliminating the oxytocic effect of those alkaloids.

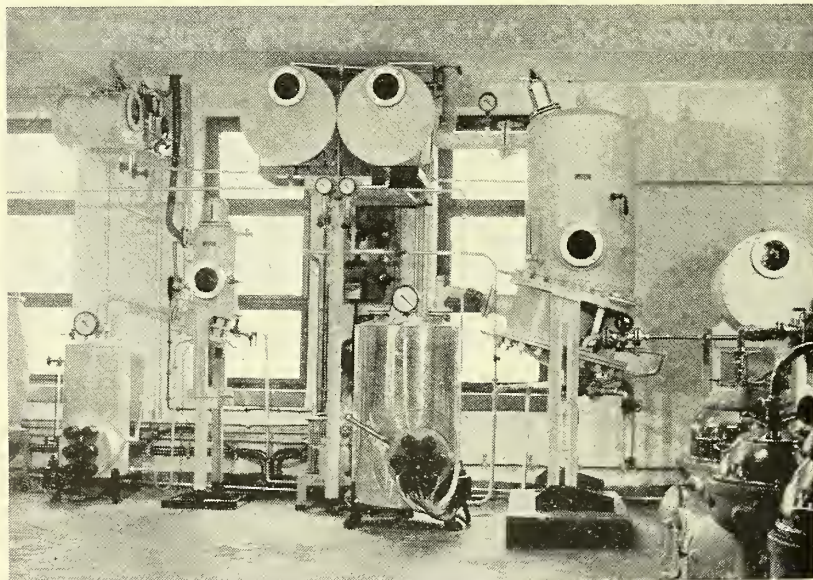
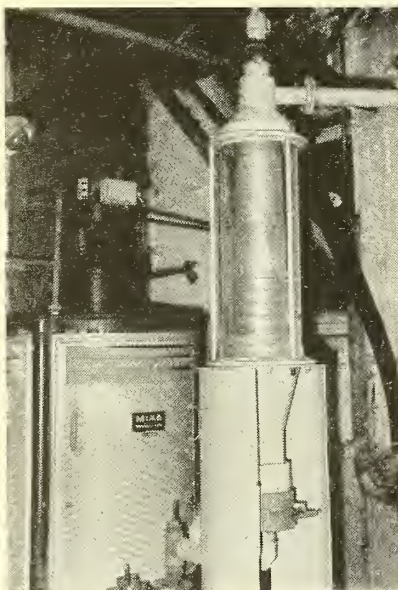
In milder conditions and for the prophylaxis of migraine dihydroergotamine tartrate is preferably administered by the oral route. Parenteral administration is ordinarily required only in severe cases and during acute migraine attacks. Usually dihydroergotamine tartrate is administered intramuscularly or subcutaneously, rarely intravenously, but injection must be slow. Occasional side-effects, especially in cases with a disposition to sympathetic nervous liability, have been reported (general asthenia, tremor, palpitation and nausea).

Formulations

For oral administration formulations in drop form a 0.2 per cent. aqueous solution is suggested, 1 mil of the solution (20 drops) to contain 2 mgm. of the tartrate. For parenteral administration ampoules of 1 mgm. of dihydroergotamine tartrate per mil are suitable, the water used being free from oxygen (it is therefore recommended to boil the water under a carbon-dioxide stream). The solution, filled into bottles or ampoules, should also be under carbon-dioxide gas pressure. For the ampoule solution, sterile filtration is preferable to sterilisation by heat. The formulations should be filled into bottles or ampoules of dark glass and stored protected from light.

LITERATURE:

- J. Bonnet and co-workers, *Bull. Soc. franc. dermat. Syph.*, 1956, **63**, 285; cf. *Presse méd.*, 1956, **64**, 733; *ZBL. Haut-und Geschl. krkh.*, 1957, **97**, 176; "Zona ophthalmique traité par dihydroergotamine et courants modulés."
C. Cancio, *Pren. méd. argent.*, 1953, **40**, 1220; cf. *Chem. Zbl.*, 1955, 2953; "Herpes zoster und Dihydroergotamin."
K. B. Choremis and C. Wonta, *Z. Kinderheilk.*, 1955, **75**, 694; "Die Einwirkung des Dihydroergotamins auf den Zuckerstoffwechsel bei Dystrophien."
R. Hotovy and E. Roesch, *E. Merk's Jahresbericht*, 1951, **65**, 20; "Die pharmakologische Bewertung genuiner und hydrierter Mutterkornalkaloide an der Mäuse-Iris."
J. R. Pittaluga and co-workers, *Rev. obstetr., Caracas*, 14, 1; cf. *Zbl. Gynäk.*, 1956, **78**, 559; "Zur klinischen Anwendung von Dihydroergotamin."
Cf. *J. Amer. med. Ass.*, 1957, **152**, 100; "Treatment of Irradiation Intoxication."
United States Dispensatory, 25th edition, p. 523.
E. Rothlin, *Bull. schweiz. Akad. med. Wiss.*, 1946-47, **2**, 249.



PRODUCTION OF ERGOT ALKALOIDS IN GERMANY: Excorna, O.H.G., Mainz, Germany, specialise in the production of ergot alkaloids. After harvesting, the ergot is separated from the thrawings by means of the apparatus on left. Plant used for the actual extraction of the alkaloids is shown on right.

The New Look in French Chemicals

SELF-SUFFICIENCY IN MAIN GROUPS IN 1960's

THE French chemical industry has roots as far back as the eighteenth century and its pioneers gave the world many discoveries which have become part of the fabric of Western civilisation. The industry grew up very quickly in the forty to fifty years between the Franco-Prussian and first world wars. Like other French industries, it was influenced rather late by the changes which had transformed Victorian England, and then tended to make up for lost time. But by 1914 it had developed far enough to play an important part in the Allied war effort.

The process of starting late and then catching up is, it seems, repeating itself. Between the two world wars chemical production was still based on a large number of small plants established in an earlier period, and as a result it expanded little. Meanwhile the United States, United Kingdom and German industries all grew by about a third from 1929 to 1939 in spite of the effects of world trade recession. Furthermore, partly in order to meet that recession, much of their capacity was concentrated in large and efficient units. As a result, France was already falling behind her chief competitors when the second world war brought serious damage to her equipment. After the war much effort and most of the available capital were needed for reconstruction.

Thus, when in 1947-48 both the U.S. and U.K. embarked on large-scale investment projects and the making of newly discovered products, France was not yet able to do so. In 1950 her competitors' outputs were from two to three times as large as 1938 totals. France's, on the other hand, was up by only a quarter, and was still overwhelmingly in the older fields: inorganic products, explosives, dyestuffs, fertilisers, and paints. That was the situation when plans were laid for expansion in the field of organic and above all petroleum chemicals. Since then, as the rest of the article shows, projects have been started and carried through with increasing drive. After a late beginning, it now looks as if France will have built up a new and competitive industry by about 1962.

A Spurt in Recent Years

In recent years industrial production has been rising more rapidly in France than in either the U.K. or U.S. and, as in those countries, chemical production has been growing more quickly than the total. Between 1953 and 1958 chemical production rose by over three-quarters, compared with one-fifth in the U.K. and U.S. There is perhaps a closer parallel between the recent experiences of France and Western Germany. By 1945 much of the West German chemical industry had been destroyed by bombing, and much that remained was orientated towards war-time requirements. The period up to 1950 was one of rationalising and rehabilitation, and output remained below its 1938 level. Between 1950 and 1953 output rose by a half, but was still mainly in established fields. At that time, however, as in France, plans were made for petro-chemical plants based on the new oil refinery programme. The first refineries were centred on Hamburg and in the region of lower Saxony; more recently the emphasis has shifted to Cologne and Karlsruhe, in the Rhine-Ruhr region, to which additional oil supplies will eventually come via the Marseilles-Strasbourg pipeline. By 1958 Western Germany produced a slightly larger share (20 per cent.) than France (17 per cent.) of West European petro-chemicals. Between 1953 and 1958 total chemical output rose at roughly the same rate in each country.

Some of the French expansion has been in inorganic chemicals, mainly in chlorine, sulphuric acid, calcium carbide and zinc oxide, but, as in other countries, there has been less progress in products like soda ash and caustic

soda, sodium carbonate and copper sulphate. Much more striking advances, however, have taken place in the organic sector, where, by 1958, output was three and a half times as large as in 1952. The impetus has come mainly from plastics, synthetic fibres, synthetic rubber, detergents, and the new antibiotics. Until the oil refinery programme was under way France depended on coal-based chemicals for her first efforts in this field. There was some \$130 millions of investment in organic projects apart from petro-chemicals between 1952 and 1956. Since then output of the basic products crude benzole and crude coal tar, has remained fairly constant, but that of refined products such as pure benzene, methanol, synthetic phenol, acetone and acetic acid, has continued to grow. Methanol in particular is in increasing demand as a solvent and raw material for formol and synthetic resins.

Petrochemical Plants

By 1958, however, over a dozen new oil refineries had been completed on sites including the lower Seine, the Gironde, Nantes, Saint-Nazaire, Dunkirk, Strasbourg and in the region of Marseilles. And at many of these, as well as in the natural gas area of St. Marcet, petrochemical plants had been built. They were mainly owned by joint petroleum-chemical groups including such names as Gillet, Rhone-Poulenc, Kuhlman, Air-Liquide, Pechiney and Ugine. The backing of the oil companies and Government willingness to give priority in raising funds in times of general stringency have answered the supply of capital, and the investment has been on an enormous scale. It amounted to some \$70 millions by 1957, but that was only a beginning: it is expected to need \$300 millions by 1960. That includes nearly all French investment in organic chemicals between 1957 and 1960, and the output of petro-chemicals is expected to double. Recently finished plants are already producing cumene, xylene, toluene and solvent naphtha. Others under construction will supply styrene-butadiene, butyl and nitrile types of synthetic rubber; and polyethylene, ethylene oxide and acetylene derivatives and propylene derivatives for plastics and solvents.

The growth of petro-chemicals has been coupled both as cause and as effect with a trend towards oil and natural gas as raw materials, and their consumption by the chemical industry has risen by half since 1952. The gas has a high sulphur content and will become the principal source of that element as well as a source of organic chemicals and some 5 per cent. of the country's energy. The first sulphur plant came into use in 1957; by 1962 output should reach 1½ million tons. That will be at a relatively low cost, saving imports which were running at 220,000 tons in 1956.

Most progress in the industries allied to chemicals is based on organic chemicals and increasingly on petro-chemicals as the investment programme proceeds. Their consumption is still relatively low for the general rate of economic progress, but is likely to catch up quickly. Output of detergents alone has risen by half in the last three years, and new plant worth \$19 millions should be operating by 1961. To some extent detergents have invaded the soft-soap market. Soap output has been falling lately: annual consumption of toilet soap is still only 0.4 kilos per head compared with a West European average of 0.7 kilos.

The pharmaceutical industry has made some progress in recent years, mainly in manufacturing the newer products like sulphonamides, antibiotics and antihistaminics. But most of these products are made under license from abroad, and although the industry employs some 35,000 and its output is worth about frs. 120,000 millions a year, it is not

much larger than five or six years ago; and although exports have been rising, they are largely dependent on the French overseas territories and have not equalled the performance of those of the U.S., U.K., Western Germany or Switzerland. As a result, France has dropped from among the world's leading suppliers to a comparatively minor place.

There seem to be three principal reasons for this. First, during the 1939-45 war the industry was cut off from its principal export markets, from its overseas subsidiaries and from some striking advances in research and technology in the outside world. Secondly, its structure tends to be more scattered than that of its competitors: there are two or three large organisations principally engaged in pharmaceuticals, and pharmaceutical divisions of the big chemical combines like Pechiney and Saint-Gobain; but the rest of the industry is made up of small units supplying mainly standard material to pharmacists rather than branded products (the relevant trade association lists over 1,000 firms against roughly 200 in the U.K.). This diffusion of resources has tended to impede the building of the costly research and production facilities which are required for some of the newer products. Thirdly, French health service rules are more exacting and less open to branded products than those of other countries. There may be strong grounds for such a policy in certain circumstances, and from a commercial point of view it has helped to keep the home market safe for French manufactures; but it may also have held up the design and development of products for world-wide sale.

By contrast, the dyestuffs industry has fared rather better in France than in most other countries. Home textiles are still the biggest outlet: demand here was rising up to 1957 but fell in 1958. There has been more growth in demand for bright pigments, and exports—about half of which go to the overseas territories—have also expanded. New plant for intermediate dyestuffs was finished in 1958, and over the next few years there will be some \$20 millions of new investment in that industry.

As a result of all those developments France will be largely self-sufficient in the main groups of chemicals by the early 1960's. In recent years her imports have been rising with general economic expansion and the need to fill a number of gaps while her investment programme is still incomplete. 1958 imports reached a value of 99,000 million francs, compared with 82,000 million francs in 1956, and the biggest items were basic organic chemicals at 27,000 million francs, and plastics at 16,000 million francs. Basic inorganic chemicals were 13,000 million francs. By 1960, however, the need for imports of organic materials and plastics should be greatly reduced.

Moreover, there may be a change in the direction of trade. A small part of 1958 imports (about 6 per cent.) came from the franc zone, with preferential treatment. About 10 per cent. came from the U.K. A much larger part (36 per cent.) came from Western Germany and other Common Market countries. There is little reason for expecting changes in the pattern in the next year or two. But after that it will become advantageous for French importers to make their purchases inside the Common Market. The common external tariff will be 12-18 per cent., not much lower than the earlier French tariff and quite high enough to influence trade.

It is, of course, possible that the effect of this on Organisation for European Economic Co-operation (O.E.E.C.) countries outside the six will be limited by some kind of free trade area agreement. But even so, chemical exports to France are going to be difficult. The answer may be for foreign companies to invest in the French industry, French companies, which are to a great extent protected by pricing arrangements, may be reluctant to face the extra competition. But the government is likely to encourage such investment because of the foreign exchange it will eventually bring in.

Exports of chemicals have lately been rising more quickly than imports—from 140,000 million francs in 1956 to 200,000 million francs in 1958. Here the main items are end-

French Trade in Chemicals 1958 (million francs)

IMPORTS	
Basic organic chemicals ...	27,031
Plastics ...	16,257
Basic inorganic chemicals ...	12,778
Dyestuffs and paints ...	9,084
Essential oils and perfumes ...	8,918
Fertilisers ...	6,863
Photographic materials ...	3,400
Pharmaceuticals ...	3,000
Soaps, detergents, etc. ...	1,604
Explosives ...	840
Others ...	8,825
TOTAL ...	98,600

EXPORTS	
Pharmaceuticals ...	33,065
Fertilisers ...	29,927
Essential oils and perfumes ...	27,581
Basic organic chemicals ...	24,805
Basic inorganic chemicals ...	23,302
Plastics ...	16,925
Dyestuffs and paints ...	10,239
Soaps, detergents, etc. ...	9,424
Photographic materials ...	8,609
Explosives ...	1,767
Others ...	13,456
TOTAL ...	199,100

French Chemicals Production (1952=100)

	1957	1958
Sulphuric acid ...	134	150
Copper sulphate ...	104	78
Sulphur ...	128	124
Zinc oxide and lithopone ...	147	172
Calcium carbide ...	125	159
Trisodium phosphate ...	101	119
Chlorine gas ...	197	232
Synthetic organic compounds ...	396	499
Plastic materials ...	362	444
Dyestuffs ...	151	132
Tanning extracts ...	92	95
Detergents ...	281	331
Photographic film ...	143	165
Perfumes ...	109	111

products: pharmaceuticals at 33,000 million francs, over a third of which are sent to the overseas territories, fertilisers at 30,000 million francs, of which a quarter are to the overseas territories, and essential oils and perfumes, at 27,000 million francs. The industry's foreign exchange earnings are estimated to have risen from about \$100 millions in 1956 to \$270 millions in 1961—which means that they should roughly double in the next three years. But such a figure will be realised only if the world market expands. In particular it may be difficult to dispose of the surplus sulphur from Lacq natural gas. Nonetheless, France's growing self-sufficiency in energy, chemicals and allied products should be a great help towards solving her foreign exchange problem.—*Economist Intelligence Unit, Ltd.*

ONE HUNDRED YEARS AGO OUR MISSION

From the C. & D., November 15, 1859

It is not our intention to comment monthly on the "Correspondence" published in these columns; the views therein expressed will be best supported or combated, as the case may be, by other writers through the same medium. The portion of our journal referred to is (as our readers are aware) thrown open for the profession of any opinions relating to the interests of the profession. By supplying this medium, we believe that we provide for one of the principal wants of our constituents. Of course the views therein expressed cannot fail to be very diverse, and, doubtless, many will be "beneath the dignity of a first-class publication." . . . We maintain that no really good cause can suffer by fair discussion.

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

C.N.S. Drugs

SIR,—In your issue of November 21 (p. 465) Mr. T. Reid (vice-president of the Pharmaceutical Society) is quoted as saying that the "vast majority of pharmacists" support the Council in their statement on C.N.S. drugs and medicines. Could he tell us on what evidence he makes that assertion?

L. EDWARDS,
London, S.W.1

Justice to an Editor

SIR,—I have thoroughly enjoyed reading your magnificent Centenary number. Historically, it gives an entertaining and accurate account of many aspects of British pharmacy during the past 100 years, but in one small reference it fails to do full justice to THE CHEMIST AND DRUGGIST and to one of your predecessors. When the general strike of 1926 threatened to stop distribution of essential drugs it was Mr. Woolley (Editor of the C. & D.) who convened a meeting in his office of the principals of London drug houses with the object of arranging a pool of their transport. Mr. F. J. Smith (of Sangers, Ltd.) presided and I attended on behalf of W. Martindale. Later, as you say (p. 122) the Drug Club took over, but the idea originated at 42 Cannon Street.

W. K. FITCH,
London, W.C.1

"Chemists Only"—Till When?

SIR,—The local representative for the distributors of a well-known black-currant juice called on me recently to solicit an order for the company's new black-currant pastilles, which his company are giving a trial run in the Birmingham area. His remark that the line is to be "chemists only" prompted me to send a letter to his headquarters in the following terms, and I feel that all pharmacists will be interested in the reply I receive.

SIRS,—Today, your representative offered me your new pastille, assuring me that the product is to be "chemists only." I should like you officially to assure me, in unequivocal words, that this is not another case of being "chemists only" until the product has been built up and then offered to all the price-cutters in the land.

I have suggested that the representative may call for an order when I have a satisfactory answer to my specific question.

C. H. SMITH,
West Bromwich

Catastrophic Laissez-faire?

SIR,—Your issue of November 14 (p. 425) contains two letters from two of our legislators. One in effect says "Let the grocers have it." The second says "Don't let the grocers have it." Your issue of November 21 contains (p. 448) a further letter on central-nervous-system drugs expressing a branch point of view. Admirable but useless! Why do these statements appear to make the sales moguls smile? Perhaps

there is no clear idea with most of us that we are dual personalities who, though trying to be good, live by trade. If we have to trade let us trade without the "holier-than-thou" outlook of the milk-chocolate politicians. But there is a point at which the line is drawn by most, that has nothing to do with chocolate or profit. The point can at times be interpreted as a "climate of opinion." With its facilities, the Society's Council can judge that point nationally, and rightly help that climate forward to a true professional outlook. This is good and progressive statesmanship if cautiously and carefully applied at the right time. To leave the matter in the hands of each and every individual (that is to adopt a laissez-faire policy in such a field of dangerous development) can be catastrophic.

H. HOLMES,
Torquay

A SHOWROOM GLAMORISED: Believing that their chemist customers would welcome something more attractive than a mere assortment of merchandise, J. C. & J. Field, Ltd., Manchester, deliberately "feminised" their displays of Fine Fragrance products when they displayed them at Christmas showrooms recently.



Council Not "Rulers"

SIR,—I do not wish to comment in general on your leader (p. 427) "A Co-operate Society," with which I am in full agreement, but I would like to draw your attention to the inaccuracy of your expression "rulers and ruled." The expression is quite inappropriate to the relationship of members of the Society and the Council, and I feel that it is a great pity that you should further the belief in the fallacy which I believe is widespread amongst members. The Council has the powers given to it by the Charter and the Act, and, in general, those powers can be described as limited to doing for the Society what the members, being a large cumbersome body, cannot do themselves. Those powers do not include any authority to give orders or directions to members. The powers which the Council exercise on behalf of the Society in the enforcement of the Pharmacy Acts are the powers of a "ruler" but are police powers enabling them to take members who have offended against the Pharmacy Acts before the magistrates. It may well be that the Council also believe in this fallacy and that may be the reason for the conduct which you rightly deplore

in your leader. Mr. Talvan Rees (p. 426) also appears to be furthering the same fallacy in saying that "the Council . . . which takes away . . . professional responsibility." The Council cannot take anything away from us and if we set our faces against the Council's high-pressure advertising there is no danger of giving anything away.

C. LONSDALE,
Stalbridge, Dorset

Brand Names: A Tobacconist's View

SIR,—You chemists puzzle me. You keep complaining of the number of brands of the same substance you have to sell. You get, compared with other retailers, a high percentage profit on all of them—and I understand that you can send back unbroken packages to your wholesaler for full credit! I sell, by and large, only two substances,

cigarettes and pipe tobacco—and there are dozens, perhaps hundreds, of brands of each—and new ones coming out every year. I am delighted, for the competition thus created between manufacturers drives them into terrific advertising campaigns and, despite the anti-smokers, the customers keep pouring in—and they ask for their requirements by brand names—never a chance for me to substitute, even if I wanted to. I could make my own cigarettes and blend my own pipe tobaccos but I could never hope to finance the promotional advertising campaigns. The result would be less smoking and fewer people asking me for cigarettes and tobacco. Are not you chemists in a similar, if not better position than the retailers who sell:

1. cigarettes and tobacco;
2. confectionery;
3. beer, wines and spirits;
4. petrol and oil;
5. ladies' stockings?

None of them are complaining about several brand names for the same product. They couldn't sell very much at all if it was not for the advertising carried out by the owners of the brand names. You've never had it so good!

TOBACCONIST

Clinical Trials

SIR,—The Minister of Health evidently intends to give effect to the Hinchliffe Committee's recommendation that a Clinical Trials Committee should be set up. The value of such proposal is doubtful. Large manufacturers already subject every major new drug to extended trials—first laboratory tests, next animal tests, and then a small-scale trial on human patients. If results are favourable, a larger quantity is made available to a suitable hospital for extended clinical trials. Only after surmounting all hurdles is the drug released for general use. The process may take two to three years, and may cost several hundred thousand pounds. Apart from the relatively small number of new drugs of major value, there are others that represent a more modest degree of progress. Also there are many new departures in technique and formulation. A firm may adopt a new method of granulation, or of securing fine particle size; or an improved excipient; or a host of other small changes. Many of them result in a preparation that is not only more "elegant" but also therapeutically more efficacious, yet it would be absurd to put them all through the heavy machinery of extended clinical trials. There can be no doubt that British Pharmacopœia products can be bettered in many ways by advances in formulation and processing. If the demand for clinical trials is carried too far English manufacturers may be put at a disadvantage compared with foreign companies that are subject to fewer restrictions, and in the long run the procedure may also be detrimental to the health of the community.

F. F. MARCHBANK,
Horsham, Sussex

A Call for "Something Positive"

SIR,—Each year in order to practise as a pharmacist I pay the Society £8 5s. For the payment of that sum of money I am granted the privilege of being open to inspection by at least eight inspectors—the police (D.D.A.); the Executive Council (test scripts); the public health department (cleanliness); the weights and measures dept.; Customs and Excise; food and drugs; Shop Acts; and the Society's own inspector. Can anyone tell me of any other profession so persecuted? I have the pleasure of serving the public at all hours of the day and night because, through financial reasons (carrying heavy stock in the dispensary to assist the Government to run the National Health Service) I cannot do otherwise than live over my premises. Should I find it inconvenient to dispense after hours an urgent prescription, which during the day would undoubtedly have been presented at the larger and supposedly more efficient organisation in the town centre that cannot be contacted after hours, I run the risk of being fined for breach of terms of contract. If I should be so professional that I refuse to dispense out of hours a three-days-old prescription I run the risk of criticism by the lay public and censure by the coroner for being so heartless. If, because of mistaken loyalty on the part of one of my highly efficient and most courteous assistants (a lady with over ten years' experience in pharmacy) a bottle of

Famel syrup should be sold whilst I am journeying up the road to purchase a bar of chocolate to replace the energy that I have lost through sorting prescriptions in "doctor order" (which should rightly be done by the pricing bureau) I am liable to a fine. If because, at the end of a hard day's work, I am too tired to send in those prescriptions, thereby depriving myself (and myself alone) of the money due to me for dispensing them, I am again liable to have more money deducted. I can, of course, sell lysol and similar poisons, but I do seem to recollect that my "colleague" the grocer along the way can do likewise and it costs him only 5s. to become an "authorised seller of poisons." He can, of course, also sell most of the commodities which I can sell, and indeed it would appear to me that many large firms which constantly appeal for my support by way of advertisements in the official publications of the Pharmaceutical Society rather imply that he is just as capable as I to sell cough medicines (except the ones with poisons in), pain relievers, and antiseptics. Of course, should the knowledge of the man who runs the general store prove inadequate, the customer can always drop in to me for advice on how to use the commodity which she has purchased from him—surely that is what I am in practice for—or so it would seem from a certain confidential document which I received

a few weeks ago from the Society which tells me that I *must* be sure to pay particular attention to the way of life of the member of the public even if my refusal to supply some commodity enables him the more easily to commit spiritual or physical suicide by purchasing his goods from that reliable source—the general store. When shall we find men amongst the apathetic members of our profession who will rise up and overthrow such intolerable nonsense. For a Society to presume to advise a member of its own Fellowship on how to conduct his business and yet take no positive action to prevent the indiscriminate sale of medicine by any jack-of-all-trades seems to me the acme of unreasonableness. It even encourages the advertisement of those "pirates" by countenancing advertisements from manufacturers who encourage such actions in the Society's most sacred writings, the *Pharmaceutical Journal*. I would be interested to know if there are any other pharmacists who are as interested in this problem as I am and if they have the time or the inclination or courage to continue this discussion either through the channels of this journal or by personal contact. Surely we *must*, repeat *must* do something positive before we entirely perish through our own shortsightedness.

GORDON HILL,
223 Ferndale Road,
Swindon

CENTENARY CONGRATULATIONS

MANY letters of appreciation of THE CHEMIST AND DRUGGIST Centenary number have been received from readers. We give below a few taken at random:

HEARTIEST congratulations on your Centenary and the magnificent number celebrating it.—Editors of *The Practitioner*.

ALLOW me to congratulate you on the Centenary issue, which is quite beyond praise. It is in every way a delight to handle and to read.—C. G. DRUMMOND, Edinburgh.

CONGRATULATIONS to your paper on reaching its Centenary and all concerned in producing the Centenary Number of *THE CHEMIST AND DRUGGIST*.—J. F. JACK (Chairman, North Metropolitan Branch, Pharmaceutical Society).

I SHOULD like to congratulate you not only on achieving your Centenary but also on the very fine edition of *THE CHEMIST AND DRUGGIST* which you have put out to celebrate it.—A. E. SMEETON (public relations officer, Evans Medical, Ltd.).

JUST a note to congratulate you on such a superb centenary edition of *THE CHEMIST AND DRUGGIST*. I particularly liked the article on "English Leeches and Leech Jars" which really caught my fancy!—IAN S. MACWATT (account executive, Alfred Pemberton, Ltd.).

I WOULD like to thank you for the copy of the Centenary issue of *THE CHEMIST AND DRUGGIST* which I have received this morning and to congratulate you upon a wonderful production. It will, in my opinion, be regarded in

years to come as one of the classics of pharmaceutical literature.—R. H. KEMP (assistant secretary, N.P.U.).

ON behalf of the president, council and members of the Liverpool Chemists' Association and Branch, I am instructed to write and congratulate the Editor and staff upon their excellent Centenary issue of *THE CHEMIST AND DRUGGIST*.—W. G. FOWLER, Liverpool.

MAY I express my personal congratulations to you and to all connected with the publication of *THE CHEMIST AND DRUGGIST* Centenary number. This is indeed a joy to look at, a pleasure to handle and a source of interest and information which will provide many happy hours.—JOHN SWAN (Herbert Ferryman, Ltd., Southampton).

PLEASE accept congratulations on your Centenary number. It must have been a tremendous undertaking and you should certainly sit back now and feel proud of what has been done. . . . I wish you all a progressive and profitable time as the next hundred years clock up.—E. PRESTON, Greenford.

THANK you very much indeed for the issue of the Centenary number of *THE CHEMIST AND DRUGGIST*. I have nothing but admiration for the way the entire book has been drawn up and wish to offer my sincere congratulations to all who were responsible.—S. V. BROWN (Orridge & Co., London, W.C.2.).

YOUR Centenary Number is a wonderful bit of work, editorially and typographically. It will take me many pleasurable hours to taste it to the full—a first, and second, glance have already whetted my appetite. My con-

gratulations will be lost amid all those you will receive from the eminent—but nevertheless I offer them.—NICHOLAS HERDMAN, Edinburgh.

THIS is a note of congratulation on your Centenary issue. It is indeed a magnificent effort. As I have never been entirely divorced from journalism for over twenty years, I perhaps appreciate the work and the result all the more. With best wishes for your second centenary.—J. ANDERSON STEWART (*Secretary, County of Middlesex Pharmaceutical Committee*).

I WOULD like to offer you my warmest and heartiest congratulations upon producing such an excellent Centenary number of *THE CHEMIST AND DRUGGIST*. It is full of interesting material and the production is absolutely first class. I am sure all your readers will join me in saying "thank you" and "well done."—J. C. BLOOMFIELD, Portsmouth.

I HAVE now seen a copy of the Centenary number of *THE CHEMIST AND DRUGGIST*, and I feel I cannot let the occasion pass without offering my good wishes to your journal on scoring their first century; also to you personally and your staff on the very handsome production which you have issued to mark this very special occasion. It is indeed an issue to be proud of.—J. R. ROSE (publicity manager, Burroughs Wellcome & Co.).

CONGRATULATIONS upon the production of your Centenary Number. I notice you show the shopfront of Messrs. Corbyn & Co. and this reminds me that in 1897, when I was a junior clerk with Messrs. Henry Ayscough Thompson & Son (now in amalgamation with Willows Francis), Mr. Corbyn was chief chemist and factory manager.—HUGH LATTIMER, London, S.E.1.

MAY I be permitted to add my congratulations to the many others you have received on reaching your centenary and to wish you every prosperity in the future. I believe I have been a subscriber for over forty years and though I have now retired from business I shall continue to subscribe to the *C. & D.* I would also like to congratulate you on your splendid Centenary number—you have excelled yourselves in this issue.—D. T. JONES, 43 Bromyard Road, Worcester.

THIS short note is to add my modest congratulations to the many I am sure you have already received on the recent Centenary number. You will not wish me to indulge in superlatives, but this is one occasion when one can say truly "It is full of good things." You will be interested to know that my wife and family have also enjoyed many of the features. We all look forward to the number you will edit in 2059.—B. M. RUSLING (Unichem, Ltd., London, S.W.17).

BY this morning's post I have received the Centenary edition of *THE CHEMIST AND DRUGGIST* and I hasten to wish you very many happy returns. I would say that for 100 years you have been the mainstay of the chemist seeking information, and if the amount of use we have made of your service

is any criterion to the amount of help you give then it has been of inestimable value to the pharmaceutical trade. Hearty congratulations.—G. G. HAMMOND, Reading.

I HAVE been able to devote some time to examination and perusal of your Centenary number, and would like to congratulate you and all who have been concerned in the production of this remarkable record of a hundred years of enterprise and achievement. In format and contents it is as attractive and interesting as any of the special issues of *THE CHEMIST AND DRUGGIST* I have seen during the past fifty years. Wishing your indispensable journal another hundred years of service to the pharmaceutical trade.—H. E. CHAPMAN (*Secretary, The Proprietary Articles Trade Association*).

I AM writing to thank you for the beautiful copy of *THE CHEMIST AND DRUGGIST* Centenary number which reached me on Friday last, and of which I am sure you all must feel very proud. I can assure you it has filled me with pride to know that I have been associated through my family connections with such prominent people that I can see are and have been connected for a long time with the well-known journal. I am sure I

should have considered it a great honour to have represented my family whose male members have all been at one time or another connected with the journal, and to have met and talked to some of the people who contribute to its publication.—ERNEST A. HERBERT, West Bromwich.

PERMIT me to add my hearty congratulations to the many you will be receiving on the publication of your Centenary number of *THE CHEMIST AND DRUGGIST*. It is in every sense a work of art and is a worthy culmination of a hundred years' valuable service to the pharmaceutical profession. The Centenary number is unusually interesting in that it looks back through the past years to conditions vastly different from those obtaining today. In the true spirit of progress however, it also looks at today and into the future. All the articles, features and colour plates are an excellent example of modern journalism at its best, and are surely the result of much patient work and care. May the *C. & D.* enter upon its second century in the knowledge that its service and popularity will continue unabated. It would, however, need the mind of an H. G. Wells to prophesy the conditions existing in 2059!—A. SPENCER, Spalding.

HOSPITAL SERVICE PROBLEMS

Pharmacists and "Canutes of Whitehall"

LORD Stonham, in the House of Lords on November 19, referred to a recent inquest at which a coroner had described pharmacists as protectors-in-chief for the careless doctor. Lord Stonham continued: "I do not wish to comment on whether or not pharmacists are 'protectors-in-chief,' but what do we pay these 'protectors-in-chief'? The commencing salary of a hospital pharmacist is less than £12 per week. That compares with £20 to £25 per week which the same man can get with retail firms or in manufacturing. So we are hopelessly under-staffed, with only some 1,300 pharmacists to man our hospitals." By Whitehall decree hospitals were not allowed to pay more than £16 16s. a week for locum pharmacists. The Pharmaceutical Society's journal, however, refused to accept advertisements at that figure, and therefore hospitals were permitted to advertise at £18 18s. . . . "But we still did not get the locums: it did not make any difference. What happened was that hospital prescriptions had to go out to local chemists, and it cost the Treasury very much more. It is in this way that the little Canutes of Whitehall defy the tides of fact and finance."

"Humiliating Farce"

Surely we were not going to permit a continuance of this humiliating and expensive farce. He asked the Minister to initiate at once, in consultation with the professional bodies concerned, a review of the salaries and conditions of employment of non-medical staffs, and at the same time improve the negotiating machinery.

Lord Stonham was opening a debate on the problems of the Hospital Service. He said he considered the great

achievements of the hospitals had been won by the people who worked in them, in the face of relentless and blind opposition by the Treasury and the bureaucracy of the Ministry of Health. In real terms less was being spent on health today than before the war. The British Medical Association considered that £75 millions should be spent on capital each year. Expenditure this year was £22 millions, next year the figure would be £22·5 millions and in 1961-62 provided the present plans were not varied it would be £31 millions. "On such finances we cannot hope to maintain our hospitals, let alone see to the improvements which are so desperately needed. It is intolerable that we pay more in profits to the manufacturers and wholesalers of National Health Service drugs than we spend on capital account in our hospitals." A plan and a system of priorities was needed. The first was that the hospitals must be clean. Some hospital wards had not been painted for twenty years. Conditions were such that if they existed in factories the Inspector would serve notice under the Act, and non-compliance would mean prosecution. Great harm was being done to patients through cross infection because the Government had not provided the means of preventing it.

After referring to the inadequacy of the hospital provision for old people and the sick, Lord Stonham said "I would appeal to the Government to give a fair deal to the ancillary non-medical staff: the pharmacists, radiographers, physiotherapists and the technicians; to the almoners and hospital secretaries. We cannot continue to trade so shamefully as we are now doing on their devotion."

PHARMACOLOGICAL RESEARCH IN 1958

Chief Medical Officer's review of drugs and illnesses

IN addition to the 112 new preparations considered during 1958 by the Joint Standing Committee on the Classification of Proprietary Preparations (see *C. & D.*, November 21, p. 441), the Ministry of Health Report, 1958, Part II, states that between 1950 and 1953 a total of 5,189 proprietary preparations were classified, of which 224 were considered to be in category (1) and the remainder as follows:—663 (2), 214 (3), 791 (3) (4), 2,278 (4), 398 (5), 621 (6). During the period 1954–58, 1,597 new preparations were also adjudicated upon.

Undaunted and Prolonged

The report states that throughout 1958 pharmacological research which was scientifically of a fundamental nature was actively maintained. A great deal was done by the pharmaceutical industry itself, in which, however, long term research tended to be confined to relatively few firms. Pharmacological advances that change the face of clinical medicine were achieved only rarely. They were usually the outcome of undaunted, prolonged and expensive perseverance combined perhaps with an element of luck: "no such discovery of obvious therapeutic significance can be recorded as having been announced in 1958." Following some disturbing clinical reports that suggested that aspirin might provoke gastrointestinal bleeding, doctors had tended to prescribe other compounds that were considerably more expensive, but which were less dangerous in that respect, even if it was doubtful whether they had in practice anything of the same order of analgesic potency. Yet, the report adds, "the widespread popularity of aspirin in self-medication has scarcely suffered any setback at all."

Reference is also made to announcements in the lay Press "extolling the alleged properties of powerful new analgesics intended as substitutes for morphia," and devoid of addictive properties. "These analgesics now appear to be quite as likely to cause addiction as those previously available. Most commendably, the pharmaceutical undertakings in this country concerned with the manufacture of such substances, co-operate closely with the government departments dealing with narcotics control, with the result that the utmost restraint is employed in the advertising and marketing to doctors of new drugs suspected in any way of possessing an addictive property. This is an example of what can be achieved for the benefit of all concerned by voluntary co-operation between commercial enterprise and statutory authority."

Under the heading "Pharmaceutical Developments in the Past Ten Years" the report assesses pharmaceutical progress by comparing the 1948 and 1958 editions of the British Pharmacopœia and includes references to the B.P.C., the B.N.F. and the International Pharmacopœia. In the introduction Sir John Charles (chief medical officer) says that an account of the pharmaceutical devel-

opments during the first ten years of the Health Service contains an "imposing list of useful antibiotics previously unknown." The discovery of the pharmacological action of cortisone and related substances stimulated a great deal of research, the most important item of which was the partial synthesis of cortisone from vegetable materials, which opened the way to far greater supplies than could have been obtained from animal sources.

Ephemeral Existence

"In addition to basic research the constant quest for greater potency of established drugs continued. These endeavours take the form of modifying the molecular structure of drugs whose value has already been established in the hope that the therapeutic effect of the modified drugs may be more satisfactory than that of the original. With the same object in view two or more established drugs may be associated in the same preparation so as to have a mutually reinforcing therapeutic effect. Such preparations have often no more than an ephemeral existence."

Until means were found of preventing or improving the treatment of cancer and degenerative diseases of the circulatory system the present expectation of life was not likely to be appreciably extended, declared Sir John.

The expectation of life in England and Wales had remained practically constant over the past five years though the proportion of persons over 65 years of age had risen slightly from 117 per thousand in 1957 to 118 per 1,000 in 1958. Diseases of the circulatory system accounted for over one-third of the total deaths; the cancers accounted for about one-sixth. There was as yet little sign of any halt in the rising trend shown by cancer-of-the-lung deaths over past years. The report reveals a new low level of maternal mortality and low records in infant mortality and neonatal mortality rates.

"The mortality of infants and children has so greatly improved," states the chief medical officer, "that we can feel that we are in reach of the goal of giving humanity a healthier life though not necessarily a much longer one. That may perhaps be effected later."

The insidious way in which smallpox could be introduced into the country was demonstrated during the year. The disease was diagnosed in a member of the crew of an inward bound vessel when six days away from this country; revaccination of passengers and crew was at once undertaken and, on arrival of the vessel at Liverpool, complete arrangements were made for the admission of the patient to a smallpox hospital and the surveillance of all on board, yet five further cases, one fatal, arose before the disease was eradicated.

From 1943 until 1957 each succeeding year showed a decrease in the diphtheria notifications but in 1958 the total jumped to eighty cases with eight

deaths. Events in 1958 should act as a warning to those who felt that diphtheria was a thing of the past and that an increase in its incidence was improbable. There was still a danger that this disease could again become a serious problem, and efforts to maintain a high level of immunisation of children could not be relaxed. Although the notifications of whooping cough had fluctuated somewhat erratically since 1940, there was a steady decline in the fatality ratio; the 0.08 per cent, in 1958 was the lowest on record.

The 2,401 deaths attributed to influenza was the lowest for five years.

The incidence rate of poliomyelitis in 1958 was 4.4 per 100,000 population so that the year proved to be a relatively mild one by comparison with other years from 1947 onwards.

There was a further fall in 1958 in the number of cases of early infectious syphilis attending the clinics for the first time. The steep rise in the number of new cases of gonorrhoea in both sexes, however, continued, and it gave cause for anxiety. "Penicillin remains an effective remedy for this disease, but there has been a general tendency to increase the dosage, which many venereologists have doubled or even trebled during the past few years. Even so, failures and relapses are quite common and there is reason to suppose that some patients who discontinue attendance after their symptoms have subsided are harbouring latent infection. Meanwhile, at the request of the Ministry, a committee of the Medical Research Council is investigating the problem of the sensitivity of the gonococcus to penicillin."

Commonest Group

Diseases of the respiratory system constitute the commonest group of illnesses in England and Wales. Deaths from all forms of tuberculosis in 1948 numbered 21,993—19,088 from pulmonary and 2,905 from other forms. Ten years later the total was 4,480 of which 3,999 were due to pulmonary tuberculosis and 481 to other forms.

The importance of early diagnosis is emphasised in the chapter on the Cancers. During the year an average of 262 people died daily from malignant disease and fifty-four of them died of cancer of the lung. By comparison accidents caused by motor vehicles were responsible for 15 deaths a day and tuberculosis for 12 deaths a day.

From 1911–1920 the number of deaths attributed to leukaemia in England and Wales averaged about 400 each year. During the past three years they had averaged about 2,300. Mortality was higher in London, South Eastern and Southern England than elsewhere in the country.

Other subjects dealt with in this comprehensive annual review of the nation's health include the laboratory services, the rheumatic diseases, food and nutrition, nursing, the artificial limb service, and medical rehabilitation. There are also thirty-six pages of tables in the Appendices.

Delicious Multi-Vitamin supplement for all ages

Vitavel Syrup is readily accepted by patients of all ages. This liquid vitamin supplement is delicious—a careful blend of true orange juice and liquid glucose with vitamins A, B₁, C and D.

*One fluid ounce contains
at time of manufacture:—*

VITAMIN A 20,000 i.u.

VITAMIN B₁ 4 mg.

VITAMIN D 3,000 i.u.

VITAMIN C 80 mg.

LIQUID GLUCOSE B.P. 25% W/V

Vitavel Syrup

Packs	Retail	Chemists
6 fl. ozs.	3/9	2/6
40 fl. ozs.	24/-	16/-

BEMAX stabilized wheat germ is the richest known natural vitamin-protein-mineral supplement. It offers easily digested nutritional support for patients of all ages.

PREGNAVITE during pregnancy. A comprehensive vitamin-mineral supplement.

Packs	Retail	Chemists
60	4/1	33/4 per doz.
120	7/4	59/10 „ „
1,000	48/-	32/9 each

For full details of prices and trade terms write for latest copy of the Vitamins Ltd. Price List.



**VITAMINS
LIMITED**

(DEPT. A.A.2.)
UPPER MALL,
LONDON, W.6.



Competitive quotations on request

for Adrenaline, Atropine, Benzamine Salts,
Bismuth Salts, Carbachol, Emetine and
E.B.I., Ergometrine, Hyoscine, Hyoscyamine,
Ouabain, Physostigmine, Pilocarpine,
Strophanthin-K, Sulphaguanidine, and many
other alkaloids and glycosides

B.W. & CO.

Fine Chemicals



BURROUGHS WELLCOME & CO.

(The Wellcome Foundation Ltd.)

The Wellcome Building, Euston Road, London, N.W.1

TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON: NOVEMBER 25: The price of PEPPER again rose sharply with origin asking more than one shilling per lb. above the previous week's highest values. Subsequently the prices eased as resellers were willing to sell at well under quotations from origin.

The principal exporters of Cape ALOES in South Africa have jointly formed a company to handle exports of that commodity from the Cape Province. One of the objects, they state, is to eliminate violent price fluctuations, but the London merchants are a little sceptical of the new arrangements. Firm conditions were reported for AGAR with the in-bond price up another threepence per lb. The range of GUM BENZOIN is now wider as the values of the top grades have appreciated. CLOVES, GUM ACACIA and Persian LIQUORICE were somewhat easier. With shipment offers of Chinese MENTHOL lacking, an afloat parcel was marked up by one shilling per lb.

Among ESSENTIAL OILS, Ceylon CITRONELLA advanced twopence per lb. for shipment, but the most spectacular rise was in LEMONGRASS, which jumped 2s. per lb. SPEARMINT and PEPPERMINT remained firm. CASTOR and ARACHIS were firmer among the EXPRESSED OILS.

The price of PYROGALLIC ACID was advanced by 10 per cent. on November 23. GALLIC ACID was advanced during the summer months when pyrogallol remained unchanged; as pyrogallol is made from gallic a similar advance has now been put into effect. A substantial rise in the price of THEOBROMINE took place on the same date due to raw material scarcities. ZINC OXIDE dropped £2 per ton. Large users of ASPIRIN will be able to obtain supplies in a new 56-lb. paper bag pack which will show a reduction of one penny per lb. over the existing keg rates.

Reductions in the prices of ETHYL ACETATE, ISOPROPYL ACETATE and BUTYL ACETATE were notified by the makers.

Earlier in the year the Board of Trade gave notice that an application for the imposition of an anti-dumping duty on pentaerythritol imported from Canada (see C. & D., March 21, p. 325). The Board now announces that it is taking no further action as the Canadian manufacturers concerned have eliminated the dumping.

Pharmaceutical Chemicals

AMIDOPYRIN.—Minimum rate is 20s. 1d. per lb. with usual differentials for smalls.

CAFFEINE.—ANHYDROUS, less than 50-kilo lots, 35s. per kilo; MONOHYDRATE, B.P., 34s.; CITRATE, 26s. kilo.

CITRIC ACID.—Domestic material in kegs is 198s. per cwt. for 1-4-cwt. lots and 195s. for 5-cwt. lots. In paper bags 5-cwt. lots are 188s. 6d.

HYPOPHOSPHITES.—Prices per lb. are:—

	7 lb.	28 lb.	1 cwt.
	s. d.	s. d.	s. d.
CALCIUM, B.P.C. ...	6 9	6 4	5 11
IRON, B.P.C. ...	13 9	13 3	12 9
MAGNESIUM ...	11 6	11 1	10 8
MANGANESE, B.P.C. ...	13 11	13 5	12 11
POTASSIUM, B.P.C. ...	9 3	8 10	8 5
SODIUM, B.P.C. ...	7 7	7 2	6 9

MAGNESIUM CARBONATE.—Minimum bulk rate for LIGHT is 121s. per cwt.; HEAVY is 160s. per cwt. for 1-cwt. lots and about 130s. per cwt. for 1-ton lots.

MAGNESIUM SULPHATE.—Quotations for B.P. in minimum 1-ton lots vary between £18 and £21 per ton according to size of crystal and manufacturer. Exsiccated is £42 per ton. All ex works.

MAGNESIUM TRISILICATE.—In 28-lb. packages the prices (per lb.) are now as follows:—28-lb., 4s. 9½d.; 1-cwt., 3s. 10d.; 5-cwt., 3s. 7d.; 1-ton, 3s. 1d.

MANDELIC ACID.—In 1-cwt. lots the price is 12s. 6d. per lb., with the CALCIUM SALT also 12s. 6d. SODIUM MANDELATE is 13s. and AMMONIUM MANDELATE 50 per cent. solution, 7s. 6d.

MERCURY DERIVATIVES.—Quotations (per kilo) for less than 50-kilo lots are now as follows:—AMMONIATED, B.P., lump or powder, 57s. 9d.; PERCHLORIDE, B.P., powder, 49s. 6d. and lump, 50s. 9d.; SUBCHLORIDE (calomel), B.P., 56s. 9d.; OXIDES, yellow, B.P., 60s.; red B.P.C., 1949, 61s. 3d.

OXALIC ACID.—Manufacturers' rates for 1-ton lots are from £128 10s. per ton, delivered in free kegs.

PHENACETIN.—In 5-cwt. lots makers' price is 6s. 8d. per lb.; 1-cwt. 6s. 9d.

PHENYTOIN SODIUM.—B.P. is 23s. per lb. in 1-cwt. lots or 25s. less than 56 lb.

PILOCARPINE.—In 2-kilo lots prices are: HYDROCHLORIDE, 1,013s. per kilo; NITRATE, 825s.

PYROGALLIC ACID.—Pure crystals are 24s. 6d. per lb. in 1-cwt. lots; resublimed, 26s. 6d.

ROCHELLE SALT.—Rates (per cwt.) for powder or granulated material are as follows:—In 5-cwt. lots or over, 200s. per cwt.; 1-cwt. 202s. 6d. SEIDLITZ POWDER, ordinary strength is 170s. 6d. per cwt. in 1-cwt. lots; smalls, from 2s. to 2s. 3d. per lb. Extra strong is 172s. 6d. per cwt., and from 2s. 1d. to 2s. 4d. per lb. for small quantities. Double-strength is 180s. per cwt.; smalls, 2s. 2d. to 2s. 5d. per lb.

SALOL.—Quotations for B.P.C. are about 9s. per lb. for 1-cwt. lots.

SODIUM ACETATE.—B.P.C. in 28-lb. lots is 2s. 4d. per lb.; 1-cwt., 2s., and 5-cwt., 1s. 11d.

SODIUM BROMATE.—1-cwt. lots are quoted at 9s. 9d. per lb.

SODIUM CARBONATE.—B.P.C. exsiccated is 70s. per cwt.; 5-cwt., 65s. per cwt.

SODIUM CHLORIDE.—Re-crystallised is 25s. per cwt. and B.P.C., 42s.

SODIUM METABISULPHITE.—Granular in 1-ton lots is from £48 12s. 6d. to £53 17s. 6d. per ton according to packing.

SODIUM PERBORATE.—Prices (per ton) are £145 15s. in 1-cwt. kegs; £138 5s. in 1-cwt. bags for B.P.C. (minimum 10 per cent. available oxygen). The PERBORATE MONOHYDRATE testing 15 per cent. available oxygen is £309 15s. and TETRAHYDRATE, from £131 15s. to 139 5s. per ton as to packing.

SODIUM PERCARBONATE.—Price (per cwt.) is 170s. 9d. (bags, 7s. 6d. lower) for minimum 12½ per cent. available oxygen.

SODIUM PHOSPHATE.—B.P.C. powder is 2s. 3d. per lb.

SODIUM SALICYLATE.—Rates are now:—1-ton lots in bulk, 3s. 7d. per lb.; 5-cwt. 3s. 8d.; 1-cwt. 3s. 10d.

SODIUM SULPHATE.—Makers' prices for B.P. range from £12 10s. to £19 17s. 6d. per ton as to crystal and quantity, ex works.

SODIUM SULPHITE.—1-ton lots on the spot of ANHYDROUS (48-50 per cent.) are £71 10s. per ton in 1-cwt. drums or £67 5s., in 1-cwt. bags. CRYSTALS, B.P.C., are £32 15s. per ton in 1-cwt. paper-lined bags. Commercial crystals are from £27 to £28 15s. as to packing.

SODIUM THIOSULPHATE.—Makers' price for 1-ton lots of photographic grade in paper-lined bags is £38 per ton.

TERPIN HYDRATE.—Prices are from 6s. per lb. upwards as to quantity.

THEOBROMINE.—ALKALOID in 50-kilos is 71s. 6d. per kilo (32s. 6d. per lb.); 5-kilos, 72s. SODIUM SALICYLATE: 12½-kilos, 55s. per kilo.

Alcohol

BRITISH SPIRIT per proof gal.:—

Ethyl Alcohol: (95 per cent. Gay Lussac, 66 o.p.); where the number of proof gall. taken over any one year ended March 31 is 300,000 or over 4s. 0½d.; 200,000 and less than 300,000, 4s. 0¼d.; 100,000 and less than 200,000, 4s. 1¼d.; 50,000 and less than 100,000, 4s. 1½d.; 10,000 and less than 50,000, 4s. 2¼d.; 2,500 and less than 10,000, 4s. 2½d. Prices are exclusive of duty and are for tank wagon lots. In 40-gall. drums there is a surcharge of 1d. per proof gall. The following grades are subject to a premium on the above prices as set out in the next paragraph:—

Absolute Alcohol, 95.5 per cent., 74.5 o.p., 3d. more per proof gall., the special high strength (99.9 per cent., 75.2 o.p.), 5d. more. Doubly Rectified Alcohol (S.V.R.) 95.8 per cent., 68 o.p., is 3d. more and P.I. Rectified Alcohol, 96.1 per cent., 68.5 o.p., 8d. more. R.R. Absolute Alcohol (re-rectified, 99.7 per cent., 75 o.p.), 14s. 10d. per bulk gall. net.

Methylated Spirit

METHYLATORS' rates per bulk gall. in Great Britain are as follows:

Industrial Methylated spirit: Strength 61 o.p., 500 gall. and over, 5s. 11d.; 100 gall. and under 500 gall., 6s. 2d.; 40 gall. and under 100 gall., 6s. 5d.; 10 gall. and under 40 gall., 6s. 10d.; 5 gall. and under 10 gall., 7s. 3d. Strength 64 o.p., ½d. per gall.; 66 o.p. (B.P.), 1d.; 68 o.p., 3½d. more than the above rates with 74 o.p. at 6s. 8½d., 6s. 11½d., 7s. 2½d., 7s. 7½d. and 8s. 0½d. per gall. for similar quantities. Tank wagon delivery is 1½d. per gall. off list price—minimum, 500 gall. For industrial methylated spirit of standard toilet quality prices are from 7s. 2½d. (tank wagon) for 500 gall. to 8s. 8d. for 5-10 gall. (in drums) for 61 o.p.

Pyridinised industrial methylated spirit: Strength 66 o.p., 500 gall. and over, tank wagon delivery, 6s. 2d.; 100 gall. and under 500 gall. (in drums), 6s. 6½d.; 40 gall. and under 100 gall., 6s. 9½d.; 10 gall. and under 40 gall., 7s. 2½d.; 5 gall. and under 10 gall., 7s. 7½d.

Mineralised methylated spirit: Strength 64 o.p. in one delivery, 100 gall. and under 500 gall., 6s. 6½d.; 40 gall. and under 100 gall., 6s. 9½d.; 10 gall. and under 40 gall., 7s. 2½d.; 5 gall. and under 10 gall., 7s. 7½d.

Methylated resin finish is 3d. per gall. over and methylated shellac finish is 1s. per gall. over the prices of pyridinised.

Terms:—Deliveries free and carriage paid on returned empties; net cash.

Crude Drugs

ACONITE.—Spot supplies of Spanish *napellus* are 2s. 6d. per lb.

AGAR.—Kobe No. 1 is 12s. 6d. per lb., in bond, and for shipment, 12s. 3d., c.i.f., new crop.

ALOES.—Cape primes, spot, 190s. per cwt. quoted; for shipment 172s. 6d., c. and f. Curaçao, 500s., spot.

BALSAMS.—Quotations per lb. are:—**CANADA:** Spot, 22s. **COPAIBA:** Para from 7s., duty paid. **PERU:** Spot, 10s. in bond. **TOLU** (genuine as imported): spot cleared and B.P., 14s. 3d.

BELLADONNA.—LEAVES are 2s. 3d. per lb. and root, 1s. 6d., spot.

BENZOLIN.—Sumatra block on the spot is £22 to £30 as to quality.

BUCHU.—Spot rounds are 4s. to 4s. 3d. per lb. and shipment, 4s. 3d., c.i.f.

CALABAR BEANS.—Spot offering at 1s. 7½d. per lb.

CALAMUS.—Root is quoted at 1s. 2d. per lb., c.i.f.

CALUMBA.—Root is 100s. per cwt., spot. **CAMPOR.**—B.P. powder is 3s. 7½d. per lb. in bond.

CAPRICUMS.—East African are from 140s. to 175s. per cwt. on the spot.

CARDAMOMS.—Aleppy greens, near float 14s. per lb., c.i.f.; prompt shipment, 13s., c.i.f. Seeds, shipment, 20s., c.i.f.

CASCARA.—Shipment, 275s. per cwt., c.i.f.; spot 300s.

CHERRY BARK.—Thin natural is 1s. 5½d. per lb., and rossed is 1s. 11s.

CLOVES.—Zanzibar on the spot are 2s. 10d. per lb. shipment, 2s. 6½d., c.i.f.

COCHINEAL.—Peruvian, 4s. 6d. per lb.; Canary Isles grey-black, 11s. and black-brilliant, 12s.

COCILLANA.—Bark is 2s. per lb. on the spot.

COLOCYNTH PULP.—Spot, 2s. 6d. per lb.

DIGITALIS.—*Purpurea* for shipment, 1s. 2½d. to 2s. 6d. per lb., c.i.f., as to quality.

ELEMI.—Spot from 1s. 10½d. per lb. shipment, 1s. 7d., c.i.f.

ERGOT.—Portuguese, 5s. per lb., c.i.f.; East European not offering.

FRANGULA.—Spot is 105s. per cwt.

GENTIAN.—Spot: French, 160s. per cwt.; Jugo-Slavian, 152s. 6d.

GINGER.—African 130s. per cwt. spot. Jamaican No. 3, spot, 185s., and shipment, 185s., c.i.f. Cochin spot quoted 135s. to 140s.

GUM ACACIA.—Kordofan cleaned sorts are 190s. per cwt. on the spot; December-January shipment, 177s. 6d., c.i.f.

HENNA.—Indian on the spot is now 95s. per cwt., ex wharf. New-crop for shipment, 65s., c.i.f.

HONEY.—Australian light amber is 97s. 6d. to 102s. 6d. and medium amber 95s. to 97s. 6d. Argentine, 95s. to 100s.; Jamaican, 115s. to 120s.; New Zealand clover 170s., nominal; Canadian clover, 150s. to 155s., all per cwt. on the spot ex warehouse.

IPECACUANHA.—Nicaraguan, 68s. 6d. per lb., c.i.f. Spot, Matto Grosso, 56s.; Colombian, 55s.

JALAP.—Spot cleared; shipment, 4s. 9d. per lb., c.i.f. Vera Cruz 15 per cent. basis.

KARAYA.—No. 1 gum on the spot is quoted at 260s. per cwt. nominal, No. 2 at 230s., nominal.

KOLA NUTS.—Jamaican for shipment, 7d. per lb., c.i.f. African, 5½d. spot and 4s., c.i.f.

LANOLIN.—ANHYDROUS, B.P. is from 170s. to 175s. per cwt. in 1-ton lots and HYDROUS, B.P., 150s., free drums, delivered.

LIQUORICE.—Natural root: Persian on the spot is 47s. 6d. and Anatolian, 60s. per cwt. Block juice: Anatolian and Chinese, 190s. per cwt.; Italian stick from 310s. to 476s. per cwt.

LOBELIA HERB.—American for shipment is 3s. 9d. per lb.; c.i.f. Dutch scarce; shipment nominally, 3s. 6d., c.i.f.

LYCOPodium.—Indian on the spot quoted at 30s. per lb.

MACE.—Whole pale blade 23s. 6d. per lb. on the spot.

MENTHOL.—Chinese spot is 58s. 6d., duty paid. Afloat 56s., c.i.f.; shipment not offering. Brazilian, 42s., in bond, 39s. 6d., c.i.f.

NUTMEGS.—West Indian 80's 13s. 6d. per lb., spot; sound unassorted, 10s.; defectives, 8s. 6d.

NUX VOMICA.—Scarce. Shipment, 125s. per cwt., c.i.f.

ORANGE PEEL.—Spot: Sweet ribbon, 2s. per lb.; bitter quarters: West Indian, 1s.; Spanish, 1s. 7d.

ORRIS ROOT.—Florentine is 345s. per cwt.

PAPAIN.—Tanganyikan 16s. per lb., c.i.f. for grade one, spot, 19s. Ceylon No. 1 white, 15s., c.i.f.

PEPPER.—White Sarawak, prices are difficult to assess; after climbing to over 5s. per lb. an easier tone developed, with resellers of December shipment, 4s. 9d., c.i.f.

PEPPERMINT LEAVES.—Dutch, 2s. 7d. to 3s. per lb., c.i.f.

PIMENTO.—Spot nominal, shipment, 522s. 6d. per cwt., c.i.f.

PODOPHYLLUM.—*Emodi* is upwards of 250s. per cwt., spot, and 195s., c.i.f., for shipment.

SENNA.—*Tinnevely* LEAVES, prime No. 1, 1s. 5d. per lb., f.a.q.; No. 3, 9d. **PODS:** Manufacturing (f.a.q.), 1s. 1d. and hand-picked, 1s. 9d. to 2s. 2d. *Alexandria* pods: Manufacturing, offered from 1s. 6d. with hand-picked from 4s. 6d. to 7s.

STRAMONIUM.—Indian LEAVES 60s. per cwt., spot. Dutch 0.5 per cent. alkaloid, 93s., c.i.f.

STYRAX.—Short. To arrive 31s. per lb.

TONQUIN BEANS.—Para on the spot are offered at 8s. 2d. per lb.; new crop, 6s. 6d., c.i.f. Angostura, 11s.

WAXES.—(Per cwt.). **BEES'.**—Dar-es-Salaam, spot, 480s.; shipment, 465s., c.i.f. Abyssinian, spot 410s. in bond; shipment, 405s., c.i.f. Benguela, shipment, 405s., c.i.f. **CANDELLA.**—Spot 445s. **CARNAUBA.**—Fatty grey spot, 610s.; for shipment, 600s., c.i.f. Prime yellow, spot, 970s.; shipment, 905s., c.i.f.

Essential and Expressed Oils

ALMOND.—Moroccan, 6s. per lb., duty paid.

AMBER.—Rectified on the spot is 1s. 6d. per lb.

ANISE.—Chinese, 7s. 10½d. per lb., spot; shipment, 7s. 9d., c.i.f.

ARACHIS.—Spot, 2–5-ton lots naked ex mill, £128 per ton.

BAY.—West Indian is 12s. 6d. per lb. on the spot.

BERGAMOT.—Spot supplies are from 85s. per lb.

BOIS DE ROSE.—Brazilian is 14s. 9d. per lb. on the spot and 14s. 6d., c.i.f.

CADE.—Spanish is 3s. 6d. per lb. for drum lots.

CAJUPUT.—Spot supplies are from 11s. 6d. per lb.

CALAMUS.—Spot quotations are 62s. 6d. per lb.

CAMPOR, WHITE.—Chinese is 1s. 9d. per lb. in bond.

CANANGA.—Spot is from 42s. 6d. to 45s. per lb.

CARAWAY.—Imported oil is 27s. 6d. per lb.

CARDAMOM.—Price per lb. is from 330s. for English-distilled and 260s. for imported.

CASSIA.—Spot is 14s. 3d. per lb.; shipment, 13s. 9d., c.i.f.

CASTOR.—Home-produced B.P. oil on the spot, £150 per ton naked ex mill (2-ton lots).

CHENOPODIUM.—Spot value is 38s. per lb. for original containers.

CINNAMON.—From quillings, best English-distilled is 50s. per oz.; other B.P. oils from 165s. per lb. Ceylon leaf, spot, 9s. 9d. per lb.; rectified, 11s. 6d. per lb.; Seychelles, 8s. 6d., spot.

CITRONELLA.—Ceylon, spot, 6s. nominal; shipment, 5s. 6d. per lb., c.i.f. Formosan, spot 5s. 3d. in bond, shipment, 5s. 2d., c.i.f.

CLOVE.—Madagascar leaf, spot, 8s. 9d. per lb., duty paid; shipment, 7s. 4½d., c.i.f. Rectified 87–88 per cent., 8s. 6d. Distilled bud oil, English B.P., 30s. to 31s.

COD-LIVER.—B.P. is 11s. 6d. per gal. in charged returnable drums. Veterinary is from 9s. 6d. per gall.

CORIANDER.—B.P. oil is quoted from 62s. 6d. per lb.

CUBE.—Small spot supplies of imported are 65s. per lb.; English, 90s.

CUMIN.—Imported oil is now about 90s. per lb.

DILL.—Imported is 8s. 6d. per lb., spot.

EUCALYPTUS.—Australian 70 to 75 per cent. eucalyptol on the spot is 4s. 6d. per lb. 80–85 per cent., 5s. 3d. Spanish (70–75), 4s. spot. Chinese 3s. to 3s. 6d., duty paid.

FENNEL.—Spanish sweet on the spot is quoted at 12s. 6d. per lb.

GERANIUM.—Bourbon is 150s. per lb. on the spot.

GINGER.—English-distilled oil is 160s. per lb. Imported: Jamaican, 130s.; Chinese, 72s. 6d., duty paid.

GRAPEFRUIT.—Jamaican, 15s. per lb. spot. Florida, 14s. 6d. spot.

LAVANDIN.—Spot is from 6s. to 9s. per lb. for original drums.

LAVENDER.—From 24s. to 37s. 6d. per lb. as to quality.

LEMONGRASS.—Spot, 14s. 6d. per lb., and shipment, 14s. 3d., c.i.f.

NUTMEG.—Imported B.P. oil is 90s. per lb. English distilled 100s.

ORANGE.—Spot quotations of sweet oil include Floridan at 5s. per lb.; Californian, 7s. 6d.; West Indian, 7s.; West African, 14s.; Israeli, 12s. 6d. Terpeneless is 200s. per lb., spot.

PENNYROYAL.—Spot is quoted from 15s. per lb., duty paid.

PEPPERMINT.—*Arvensis*: Chinese for shipment nominally 30s., c.i.f. Brazilian 10s. 9d. to 11s. 3d. spot and shipment, 10s. 6d., c.i.f. *Piperita*: Italian "Mitcham-type" from 42s. 6d. to 48s. 6d.; American, 26s. to 30s., as to origin.

UNITED STATES REPORT

NEW YORK, MARCH 24: **CHLORAL HYDRATE**, U.S.P., declined to 90 cents a lb., down five cents. Natural powdered **CAMPOR** sagged to 53 cents a lb., down two cents. Down by one cent per lb. among **CRUDE DRUGS** were powdered **RHUBARB ROOT**, at 30 cents, and **GUM ACACIA**, at 27 cents. **TOLU BALSAM** firmed up to \$3 a lb., up 15 cents. **LEMONGRASS OIL** continued to soar, offerings now standing at \$2.25 a lb. Higher per lb. among **ESSENTIAL OILS** were **SPEARMINT** at \$8.75, up 25 cents; natural **peppermint**, at \$4, up 30 cents, and **redistilled** at \$4.30, up 20 cents.

TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

From the "Trade Marks Journal," November 11
For all goods (3)

BUBBLE-BAC, B785,522, by C. H. Boehringer Sohn, Ingelheim-on-Rhine, Germany. FORAC, 791,865, by Scott & Turner, Ltd., Newcastle-on-Tyne.

For perfumes, non-medicated toilet preparations, hair lotions, dentifrices and essential oils (3)
Device with wording, 787,334, by Bourjois, Ltd., Croydon, Surrey.

For soaps, etc. (3)

SCANDALE, 788,768, by B.R.E.S.A., Geneva, Switzerland.

For hair dyes in the form of creams (3)

CREMENOL, 789,514, by Evanol, Ltd., London, N.5.

For non-medicated toilet preparations (3)

DERL, 789,913, by Roberts Windsor, Ltd., London, E.C.1.

For essences; essential oils, and perfumes (3)

CITRANOVA, 792,564, by Cocker Chemical Co., Ltd., Oswaldtwistle, Lancs.

For antiseptic paper in roll or sheet form (5)

ASEPTO, 782,866, by E. S. & A. Robinson, Ltd., Bristol.

For adhesive dressings, bandages (dressings), cotton wool (pharmaceutical) and lint (surgical dressings) (5)

Device with word PERFECTOPLAST, 784,272, by Julian Singer, Glasgow, S.1.

For pharmaceutical preparations for human and veterinary use and being for sale in the United Kingdom, but not including insecticides or preparations for destroying vermin (5)

COXSTAT, 785,798, by Bayer Products, Ltd., Kingston-on-Thames, Surrey.

For pharmaceutical preparations and substances, all for sale in the United Kingdom (5)

SPASALA, B788,319, by Bayer Products, Ltd., Kingston-on-Thames, Surrey.

For weed killing preparations (5)

NORDOC KILL-WEED, 788,535, by Codron Lime Quarries, Ltd., London, E.C.2.

For chemical substances for use in medicine and pharmacy (5)

CALUSORB, 788,915, by Calmic, Ltd., Crewe, Ches.

For pharmaceutical preparations for the treatment of coughs, colds and other respiratory complaints and being for sale in the United Kingdom (5)

VANCOF, 788,938, by Bayer Products, Ltd., Kingston-on-Thames, Surrey.

For medicated confectionery (5)

BOUNTY, B789,303, by Mars, Ltd., Slough, Bucks.

For pharmaceutical preparations and substances (5)

CALURIN, 790,784, by A. Wander, Ltd., London, W.1. PURIF, 793,127, by J. & J. Ballard, London, S.W.17.

For medicated boiled sweetmeats containing honey (5)

HONEY-SUCKLES, 791,526, by W. & M. Duncan Ltd., Edinburgh.

For all goods (5)

DECABAMATE, 791,890, by Merck & Co., Inc., Rahway, New Jersey, U.S.A. BESOCILIN, 792,879, by C. H. Boehringer Sohn, Ingelheim-on-Rhine, Germany. LIXARIL, 793,032, by Aspro-Nicholas, Ltd., Slough, Bucks.

For medicated preparations for the skin (5)

CETRIDERM, 792,205, by Harry Isaac Katz, Leeds.

For preparations for destroying slugs (5)

SECTO SLUG-KIL, 792,381, by Secto Co., Ltd., Blackburn, Lancs.

For insecticides (5)

COOPERCOTE, 792,539, by Cooper, McDougall & Robertson, Ltd., Berkhamsted, Herts.

For medicines (5)

APROBIT, 792,617, by A. B. Recip, Stockholm, Sweden.

For pharmaceutical preparations (5)

DI-ADAMIL, 792,640, by E. R. Squibb & Sons, Ltd., London, W.1.

For antibiotic preparations and substances (5)

DECELLIN, DECEMYCIN, EISMYCIN, ENGAMYCIN, ENGLACILIN, ENGLAMYCIN, FUNDAMYCIN, HECTOCILLIN, PRIMACILLIN, PRIMAMYCIN, 792,939-44, 792,947-48, 792,957-58, by Beecham Research Laboratories, Ltd., Brentford, Middlesex.

For preparations for killing weeds and destroying vermin (5)

IMATINOL, 793,058, by Farbenfabriken Bayer, A.G., Leverkusen, Germany.

For electrically operated appliances for removing and applying facial toilet preparations (9)

Device, 785,678, by Antoine François Regis Peyron, Paris, France.

For photographic cameras, reproducing cameras and flashlight apparatus for photographic purposes (9)

CLIBO, 790,158, by Agfa, A.G. Leverkusen, Germany.

For vacuum flasks and vacuum jugs; and drinking cups made of plastics and being fittings for vacuum flasks (21)

SUNSHINE, 782,479, by British Vacuum Flask Co., Ltd., London, W.C.1.

From the "Trade Marks Journal," November 18

For hair-setting preparations (3)

ORCHASET, 784,889, by Hans Schwarzkopf, Hamburg-Altona, Germany.

For perfumes, eau de Cologne, non-medicated toilet preparations, cosmetic preparations, hair lotions, essential oils, soaps and toilet articles (not included in other classes) (3)

COUP DE FOUET, 768,556, by Félicie Eugénie Amélie Bergaud, Paris, France.

WILLS

MR. L. ROBERTS, M.P.S., Medical Hall, Church Street, Blacnau Ffestiniog, Merioneth, left £12,219 (£11,394 net).

MR. J. M. SMITH, M.P.S., Ingleroyd, Cross Roads, Northowram, near Halifax, left £56,700.

MR. P. D. J. SPAANDERMAN, M.P.S., Deincourt, Chesterfield Road, Huthwaite, Notts, left £18,247 (£16,440 net).

MISS F. I. STEPHENSON, M.P.S., Figham House, Hull Road, Beverley, Yorks, left £2,808.

MR. G. F. SWIFT, M.P.S., Greenways, Beaumont Park Road, Huddersfield, left £26,465 (£25,966 net).

MR. H. F. TRUNCHION, M.P.S., The Briars, Elgin Road, Wallington, Surrey, left £23,103 (£23,028 net).

MR. W. U. TYSON, M.P.S., 11 Victoria Parade, Morecambe, left £14,252 (£13,656 net).

MR. J. T. WEBB, M.P.S., 7 Farm Lane, Oak Hill College, Southgate, N.14, left £7,431 (£7,321 net).

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Saturday, November 28

SOUTH-WEST METROPOLITAN HOSPITAL PHARMACISTS' COMMITTEE, Board room, Regional hospital building, 40 Eastbourne Terrace, London, N.2, at 2.45 p.m. General meeting, followed by reception. Guest: Mr. A. G. Linfield (chairman, S.W. Metropolitan Regional hospital board).

Monday, November 30

HENDON AND EDGWARE BRANCH, PHARMACEUTICAL SOCIETY, Hendon Hall hotel, Ashley Lane, London, N.W.4, at 8 p.m. Dr. N. Sherrard on "Mind is the only thing that matters."

LONDON SECTION, SOCIETY OF CHEMICAL INDUSTRY, Mezzanine theatre, Shell-Mex house, Strand, London, W.C.2, at 6.30 p.m. Scientific films.

NOTTINGHAM BRANCH, PHARMACEUTICAL SOCIETY, Medico-Chirurgical Society, 64 St. James' Street, at 7.30 p.m. Dr. R. W. Baldwin on "Chemical Carcinogens and their Mode of Action."

Tuesday, December 1

GLASGOW PHARMACY CLUB, Craig's tea rooms, Sauchiehall Street, at 7.30 p.m. Whist drive.

HARROW BRANCH, PHARMACEUTICAL SOCIETY, King's school, St. John's Road, at 8 p.m. Mr. K. R. Fell on "Pharmacy and Nepal."

ISLE OF WIGHT BRANCH, PHARMACEUTICAL SOCIETY, Bugle hotel, Newport, at 7.30 p.m. Mr. W. Tomski on "Management Accountancy in Retail Pharmacy."

MANCHESTER BRANCH, GUILD OF PUBLIC PHARMACISTS, Chartered Accountants hall, at 7.45 p.m. Rev. I. Hodgson on "Dead Sea Scrolls."

MANCHESTER PHARMACEUTICAL ASSOCIATION BRANCH, Fallowfield hotel, at 8 p.m. Dance.

NORTH LONDON PHARMACEUTICAL ASSOCIATION, NORTH METROPOLITAN BRANCH, Wellcome building, 183 Euston Road, London, N.W.1, at 7 p.m. Museum visit.

TEES SIDE BRANCH, PHARMACEUTICAL SOCIETY, Vane Arms hotel, High Street, Stockton-on-Tees, at 7.30 p.m. Films.

WEST HERTS BRANCH, PHARMACEUTICAL SOCIETY, Green Man, Watford, at 8 p.m. Business meeting.

Wednesday, December 2

BIRKENHEAD AND WIRRAL BRANCH, NATIONAL PHARMACEUTICAL UNION, Central hotel, at 8 p.m. Mr. H. Moss (member Executive) on "Stop Press. The Latest from Mallison House."

LONDON SECTION, ROYAL INSTITUTE OF CHEMISTS, College of Technology, Battersea Park Road, S.W.11, at 7 p.m. Dr. H. T. Hookway on "Ion Exchange Membranes and Their Application."

NORWICH BRANCH, PHARMACEUTICAL SOCIETY, Assembly house, Theatre Street, at 7.30 p.m.

Dr. J. W. Corran (Reckitt & Colman, Ltd.) on "Tour of Pakistan."

PHARMACY GROUP, SOCIALIST MEDICAL ASSOCIATION, Wellcome building, 183 Euston Road, London, N.W.1, at 7.15 p.m. Mr. E. J. Sherrard on "Pharmacy in Poland."

PORTSMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Royal Beach hotel, Southsea, at 7 p.m. Dinner dance.

SOUTH SHIELDS PHARMACISTS' ASSOCIATION, Marine Grotto, Marsden, at 7.30 p.m. Dinner.

SWANSEA AND WEST GLAMORGAN BRANCH, PHARMACEUTICAL SOCIETY, Mackworth hotel, at 7.45 p.m. Business meeting.

WALLASEY PHARMACISTS' ASSOCIATION BRANCH, Grange, Warren Park, at 8 p.m. Christmas party.

Thursday, December 3

BOURNEMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Grand hotel, at 7.30 p.m. Dr. K. Morgan on "The Pharmacology of Cancer."

GUILDFORD BRANCH, PHARMACEUTICAL SOCIETY, Prince of Wales, at 7.30 p.m. Talk.

HUDDERSFIELD CHEMISTS' ASSOCIATION BRANCH, St. Thomas's Club, Longroyd Bridge, at 8 p.m. Dinner.

LEICESTER BRANCH, PHARMACEUTICAL SOCIETY, Shakespeare hotel, Braunstone, Dance.

MANCHESTER PHARMACEUTICAL ASSOCIATION BRANCH, Engineers' club, at 7.45 p.m. Colour photography.

MICROBIOLOGY GROUP, SOCIETY OF CHEMICAL INDUSTRY, 14 Belgrave Square, London, S.W.1, at 6.15 p.m. Dr. F. Brown (Animal Virus Diseases Research Institute) on "Infective Ribonucleic Acid from the Virus of Foot and Mouth Disease."

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, 17 Bloomsbury Square, London, W.C.1, at 7.30 p.m. Dr. H. Jackson (Christie hospital, Manchester) on "Antifertility Substances."

POLAROGRAPHIC SOCIETY, Duke of York, Dering Street, London, W.1, at 7 p.m. Discussion.

THAMES VALLEY PHARMACISTS' ASSOCIATION BRANCH, Kingston hotel, Kingston-upon-Thames, at 7.45 p.m. Mr. T. C. Thomas on "Pharmacy in the Soviet Union."

Friday, December 4

EAST METROPOLITAN BRANCH AND WEST HAM ASSOCIATION, Whipps Cross hospital, at 8.30 p.m. Dr. R. D. Tear on "Pathology and Homicide."

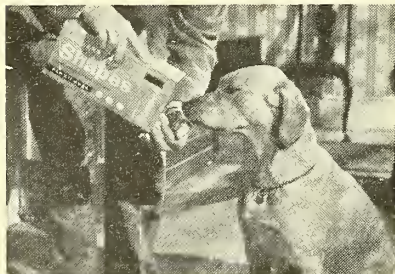
HULL BRANCH, NATIONAL PHARMACEUTICAL UNION, Imperial hotel, at 8 p.m. Mr. E. A. Brocklehurst (a member of Executive) on "N.P.U. onwards from 1939."

MERSEYSIDE BRANCH, NATIONAL ASSOCIATION OF WOMEN PHARMACISTS, 9 Bluecoat Chambers, School Lane, Liverpool, 1, at 7.15 p.m. Film show.

TELEVISION

December 6-12

	London	Midland	North	Scotland	Wales	South	N.E.	Anglia	Ulster
Alka-Seltzer ..	1	2	2	2	1	2	1	—	—
Amami wave set ..	6	10	6	3	1	2	2	2	2
Anadin ..	1	1	1	2	4	1	1	4	4
Anestan ..	1	—	—	1	1	—	1	—	—
Angier's junior aspirin ..	—	4	3	—	—	—	—	—	—
Askit ..	—	—	12	—	—	—	—	—	7
Astrem tablets ..	—	—	1	—	—	—	—	—	—
Beecham's pills ..	1	2	2	2	2	2	2	2	2
Beecham's powders ..	4	4	4	4	4	3	4	4	4
Bisodol ..	—	—	—	—	—	4	—	—	—
Bristow's starspray ..	1	—	—	—	—	2	—	—	—
Brylcreem ..	4	10	11	11	11	11	3	—	—
Camay ..	2	2	4	3	3	4	2	4	5
Cephos ..	—	—	3	—	—	—	—	—	—
Coldrex ..	3	4	4	3	—	4	3	3	—
Cuticura ..	2	—	—	—	—	—	—	—	—
Eno's "Fruit Salt" ..	1	1	1	—	—	—	—	—	—
Germolene ..	1	1	1	1	—	1	1	—	4
Gillette ..	2	—	2	2	2	2	2	1	—
Knights Castile soap ..	—	—	—	—	—	—	—	1	1
Lantigen ..	1	1	1	1	—	—	—	—	—
Loxene shampoo ..	—	1	—	—	—	—	—	4	1
Lucozade ..	2	3	4	—	2	4	2	—	—
Mac throat sweets ..	3	4	—	—	—	—	—	—	—
Max Factor preparations ..	3	3	3	3	3	3	3	3	1
Menthatholam Deep Heat rub ..	3	—	2	—	—	—	—	—	3
Milk of Magnesia tablets ..	2	—	—	3	2	2	2	—	—
Nemakol ..	1	1	1	—	—	—	—	—	3
Norvic electric blankets ..	3	—	—	3	—	—	—	—	—
Pal Injecto-matic ..	7	7	7	6	6	7	6	4	4
Pantene ..	—	—	—	—	—	—	—	2	—
Phensic ..	3	3	3	3	3	3	3	—	—
Phillip's tooth-paste ..	—	—	—	1	—	—	—	—	—
Phosferine ..	1	1	1	1	1	1	1	1	1
Phyllosan ..	—	1	1	—	—	—	—	—	—
Polly Roll ..	—	1	2	1	—	1	1	—	—
Prom ..	3	3	2	3	3	3	3	3	3
Remington shavers ..	14	8	4	6	6	4	9	6	4
Rennies ..	2	—	—	2	2	2	1	2	3
Ribena ..	3	2	2	2	2	3	2	—	—
Rinstead pastilles ..	1	—	—	1	3	—	—	2	1
Ronson shavers ..	4	3	3	4	4	4	4	4	4
Sanatogen ..	—	3	—	—	—	—	—	—	—
Savlon lozenges ..	—	—	—	4	—	—	—	4	—
Savril ..	—	—	—	—	—	—	—	3	—
Scentinel Quiff ..	—	—	—	—	—	—	1	—	—
Setlers ..	3	3	3	3	2	4	2	—	4
Shavex ..	2	2	2	1	—	—	—	—	—
Silvikrin pure ..	1	—	—	—	—	—	—	—	—
Sun Orange Quosh ..	—	—	—	—	2	—	—	—	—
Suregrip gloves ..	3	3	3	3	3	3	3	—	—
Toni ..	2	2	2	2	2	2	2	2	2
Tru-gel ..	1	2	2	1	—	2	3	3	3
Twink ..	4	4	4	5	4	4	4	4	4
Ultraplax ..	—	—	—	—	2	—	—	—	—
Valderma balm ..	3	—	1	—	—	—	—	—	—
Veno's cough mixture ..	3	3	3	—	3	3	3	3	3
Vitacup ..	—	—	—	—	—	—	—	2	—
Vosene ..	1	1	—	—	—	—	—	—	—
Wincarnis jelly ..	—	—	—	—	—	—	—	1	—
Yeast-Vite ..	1	1	1	2	1	1	1	2	2



"STILL" FROM A "COMMERCIAL": A dog waits patiently for his feed from a carton of Spiller's Shapes in a television "commercial" booked by Spiller's, Ltd., 40 St. Mary Ave, London, E.C.3.

PRINT AND PUBLICITY

PUBLICATIONS

Catalogues

BRAOLEY & BLISS, LTD., King's Road, Reading: Photographic 1959.

Booklets and Leaflets

ILFORO, LTD., Ilford, Essex: Ilford Multigrade paper (leaflet).

P. LEINER & SONS, LTD., 7 Creechurch Lane, London, E.C.3: "Leiner gelatine—its uses in modern industry," Pp. 20.

BRUTE STARKE & CO., LTD., 5 Fenchurch Street, London, E.C.4: *Dragoco Report No. 11, 1959*. Pp. 16.

PRESS ADVERTISING

BROOK, PARKER & CO., LTD., Ashfield, Horton Road, Bradford, 7: *Cesbron*. In *Huddersfield Daily Examiner*, *South Shields Gazette*, *Bradford Telegraph & Argus*, *Oldham Evening Chronicle*, *Sunderland Echo*, *Newcastle Evening Chronicle*, *Middlesbrough Evening Gazette*, *Rochdale Observer*, *Burnley Express & News*, *Darlington & Stockton Times*; *Rawtenstall Rosendale Free Press*, *Bury Times*, *Wakefield Express Service*, *Nelson Leader & Colne Times*, *Accrington Observer*, *Bolton Evening News*.

BURROUGHS WELLCOME & CO., 183 Euston Road, London, N.W.1: *Saxin*. In national and provincial Press and women's magazines.

DOMESTOS, LTD., College Works, Albion Row, Newcastle, 6: *Sqery*. In national and local Press, women's magazines and *Radio Times*.

EAREX, LTD., 23 Tulketh Street, Southport, Lancs: *Earex*. In local newspapers in Midlands, Cumberland and Westmorland.

EVER-READY RAZOR PRODUCTS, LTD., 26 Bedford Row, London, W.C.1: *Pal Injecto-matic razor*. In *Daily Mirror*, *Daily Express*, *Daily Sketch*, *Blighty*, *Titbits*, *Top Spot*, *Reveille*, *Weekend Woman* and *Woman's Own* during November and December.

F. W. HAMPSHIRE & CO., LTD., Sunnysdale, Derby: *Loxene medicated hair cream*. In *Daily Express*, *Daily Mirror*, *News Chronicle*, *Daily Mail*, *Daily Herald*, *News of the World*, *Glasgow Daily Record*.

ROBINSON & SONS, LTD., Wheatbridge Mills, Chesterfield: *Paddi and Paddi-pads*. In women's journals.

C. & D. WEEKLY LIST OF PRICES

A = Advanced; R = Reduced; I.R.P. = Inclusive Retail Price; * = Tax 25 per cent.; † = Tax 50 per cent.

DUNCAN FLOCKHART & CO., LTD. (from November 30)
Eyesules atropine sulphate 6 5 0 A I.R.P.

MYRAM PICKER, LTD.
Outdoor Girl propelling eye pencil† Doz. 15 0 2 6 R
refill† 10 6 1 9 R
"Nail Magic" pearl† 15 0 2 6 R

PETFOODS, LTD. (from November 23)
Kit-E-Kat 0 7½ R

NEW PRODUCTS AND PACKS

ANDRE PHILIPPE, LTD.
No. 21 bath crystals† 21 0 3 6

ARMOUR PHARMACEUTICAL CO., LTD.
Sinaxar tablets* 500 150 0 270 0
Each

BENGUE & CO., LTD.
Metanium powder* 4 oz. 3 9
siliconised ointment* 5 lb. 80 0

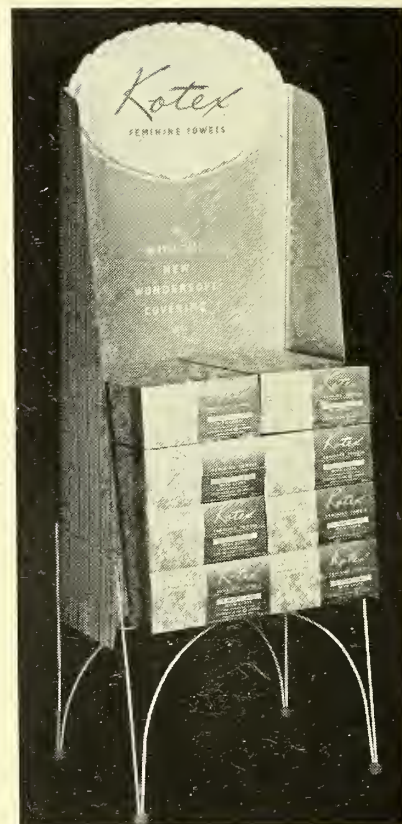
CALMIC, LTD.
Puromyn tablets* 20 2 10

CIBA LABORATORIES, LTD.
Vioform-hydrocortisone lotion 20 mls 11 0 16 6

EX-LAX, LTD.
Ex-lax 36-piece family bar 4 0
Milk-chocolate junior Ex-lax 9-piece bar 1 6

JOHNSON & JOHNSON (GT. BRITAIN), LTD.
Steri-pads Doz. 3 x 3 in. pack of 4 8 0 1 0

KODAK, LTD.
Kodak Velox sodium safelamp 480 0
bromide sodium safelamp 520 0



FEMININE APPEAL: To set off the feminine elegance of their redesigned Kotex towels pack, Kimberly Clark, Ltd., Larkfield, Maidstone, Kent, have made available the elegant wire-frame stock show-stand illustrated.

"How To Make Good Home Movies" Each 5 0 7 6

MEDO-CHEMICALS, LTD.
Kethamed tablets* Each 25 4 4 7 7
20 mgm. 100 14 0 24 6
250 32 6 56 10½
Glycinal tablets* 50 4 8 8 2
18 6 32 4½

MERRELL-NATIONAL (LABORATORIES), LTD.
Merocet 4 oz. 2 4 3 6

MYRAM PICKER, LTD.
Outdoor Girl cleansing cream† Doz. 15 0 2 6
lanolin cream† 15 0 2 6
moisture cream† 15 0 2 6
"Magic Touch"† 15 0 2 6
"Secret Magic" mirror compact† 21 0 3 6
refill† 12 0 2 0

NEVILLE BROWN & CO., LTD., and PULLIN OPTICAL CO., LTD.
Wiko transparency frames 2 x 2 in. box of 20 7 3

PAN BRITANNICA INDUSTRIES, LTD.
T.B.I. gardener's gift pack 10 6

PARFUMS LE GALION
Sortilege talcum powder† 13 6
soap* 4 oz. 13 6

PARKE, DAVIS & CO., LTD.
Midicel sulphamethoxy-pyridazine suspension 2 fl. oz. 12 0

RIMMEL, LTD.
Frosted eye shadow stick† 7 6 1 3

A. WANDER, LTD.
Nebrinal tablets dispensing pack 50 48 0
Each do 250 16 0

ACHROMYCIN* V

TETRACYCLINE WITH CITRIC ACID AND SODIUM CITRATE

* REGD. TRADEMARK

SYRUP

fast acting...easy to take



No other antibiotic can match the impressive record of success and safety of ACHROMYCIN V... no other offers such a consistent pattern of favourable response.

ACHROMYCIN V SYRUP

Each teaspoonful (5 cc.) contains 125 mg. tetracycline with citric acid and sodium citrate. In bottles of 2 fl. oz. and 16 fl. oz.



LEDERLE LABORATORIES

a division of

CYANAMID OF GREAT BRITAIN LTD. London W.C.2





EXCORN

FOR

ergot alkaloids

Dihydroergotamine tartrate
Dihydroergotamine methane sulphonate
Ergocristine base and phosphate
Ergotamine base and phosphate
Ergotamine tartrate USP XV
Dihydroergocristine base, isethionate
and methane sulphonate

EXCORN O.H.G.
MAINZ—GERMANY

Sole U.K. Representatives

J V D B **JACOBSON VAN DEN BERG & CO (UK) LTD.**
3-5 CRUTCHED FRIARS, LONDON, E.C.3. Tel: ROYAL 7664

RHEUMATIC RELIEF - -

A vast number of people suffer pains due to Rheumatism, Neuralgia, Chest Colds and so on. Most of them seek relief, and for this we offer a tried and trusted product—THERMOID CREAM. This contains Wintergreen, Menthol and Capsicum in a NON-GREASY base. The properties of these are well known to be WARMING, PENETRATING and PAIN RELIEVING—just what the sufferer seeks. Display THERMOID regularly; it will sell and bring repeat business.

Bonus and display material available.



WARMING!
PENETRATING!
PAIN RELIEVING!

THERMOID CREAM

FOR THE RELIEF OF
RHEUMATISM, SORE THROAT, CHEST COLDS,
NEURALGIA AND NERVE PAINS

FOR USE IN PLACE OF
MUSTARD PLASTERS,
CHILLIE PASTES AND GREASY LINIMENTS

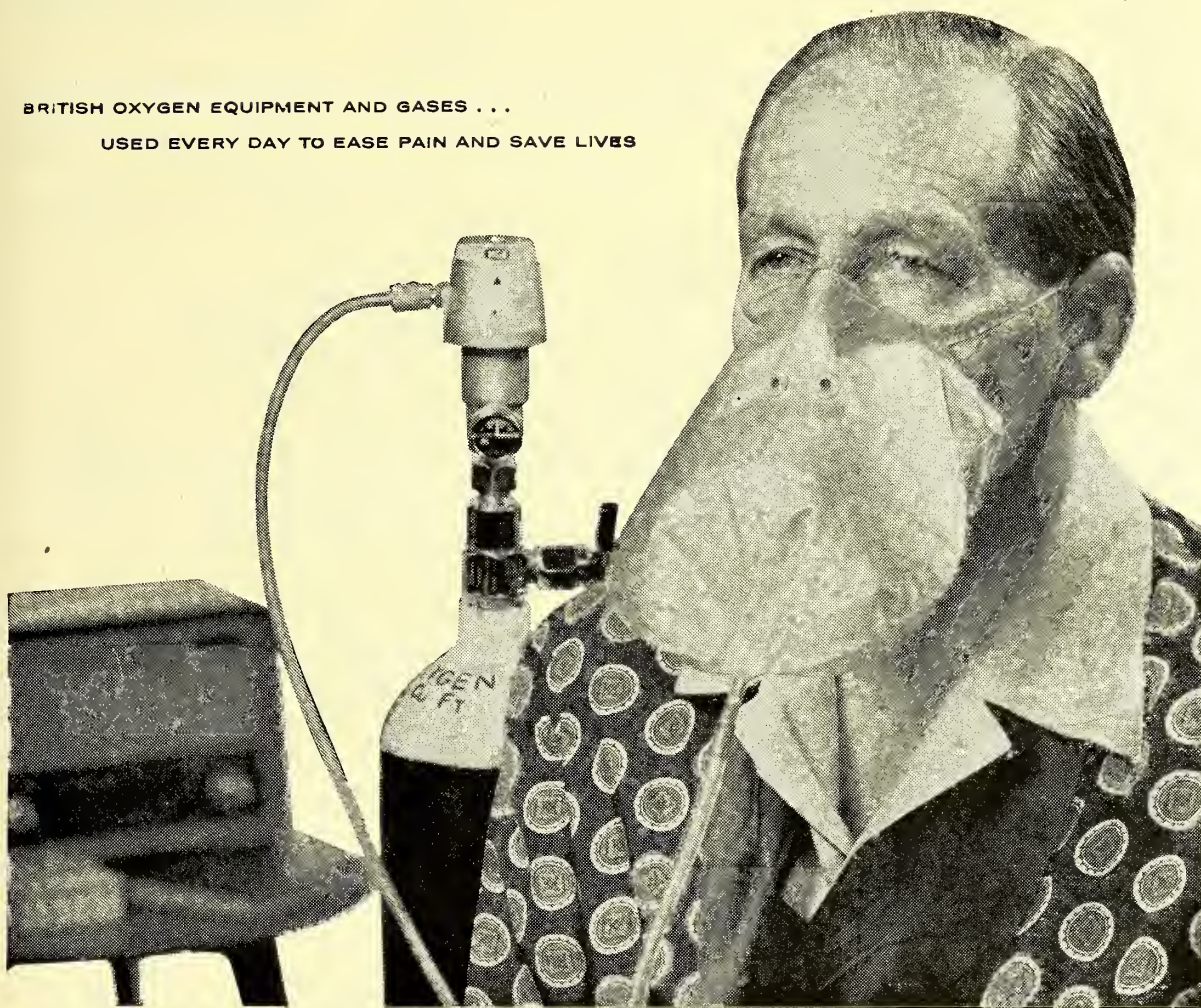
RETAIL PRICE
2/11 TUBE

TRADE 20/- DOZ
PLUS P.TAX 5/- DOZ

A PRODUCT OF *Cuxson, Gerrard & Co. Ltd.* OLDBURY, BIRMINGHAM

BRITISH OXYGEN EQUIPMENT AND GASES . . .

USED EVERY DAY TO EASE PAIN AND SAVE LIVES



**“Please provide oxygen therapy set
with Polymasks - MS 500 48 cu. ft. oxygen”**

You might receive this prescription now that the new lightweight Single Unit Set for domiciliary oxygen therapy has been approved for use against E.C.10 orders. Developed by British Oxygen this equipment is robust, easy to operate, and is supplied with two disposable Polymask inhalers. This domiciliary oxygen therapy equipment is now an essential item in a chemist's stock.

For demonstration and full details of how to purchase or hire this equipment, please write to



BRITISH OXYGEN

British Oxygen Gases Limited
Medical Div., Great West Road, Brentford, Middx.



The tree of life,
the symbol of the
highest quality in
fine chemicals today.

CARNEGIES of WELWYN LTD. ESTABLISHED 1911

Manufacturers and Suppliers of

ADRENALINE
ADRENOCHROME
MONOSEMICARBAZONE
ALPHANAPHTHYL ACETIC ACID
AMINOPHYLLINE
BISMUTH SALTS
BRUCINE AND SALTS
CAFFEINE AND SALTS
CHRYSAROBIN
EPHEDRINE AND SALTS
HYDANTOIN DERIVATIVES
IODIDES
ISOPRENALINE SALTS
METHOIN
NORADRENALINE AND SALTS
P.A.S. SODIUM
PIPERAZINE AND SALTS
RESERPINE
SANTONIN
STRYCHNINE AND SALTS
THEOBROMINE AND SALTS
THIOMERSALATE
QUININE AND SALTS
CINCHONA FEBRIFUGE
TOTAQUINA

CARNEGIES OF WELWYN LTD.
Welwyn Garden City, Hertfordshire, England

Phone: WELWYN GARDEN 5001 (10 lines)
Cables: CARNEGIES, WELWYNGARDENCITY
Telex: LONDON 28676



PRIDE

hair beauty
PREPARATIONS
sell on sight!

Spraying ^{HAIR} Lacquer

Retails at 3/6

The finest of hair lacquers with a delightful perfume available in the new Super Spray 2½ oz. polythene bottle (various colours) in attractive individually packed cartons, and boxed in 1 doz. units in eye-catching display outers. Refill sachets also available packed in 2 doz. outers retail at 2/3.



Egg and Lemon

CREAM SHAMPOO Retails at 3/9

24 shampoos in plastic injector dispenser—Hair and scalp always kept at its best with this high-foaming soapless cream shampoo made from the natural benefits of shell eggs and juice of fresh lemons. Trial—3 shampoos, tubes 9d.; 3 individual shampoos linked together 10½d. all packed in well-designed display outers.



Scalp Milk

Retails at 3/3

An alleviating scalp lotion for use after shampooing and before setting. Allays scurf irritation; quick drying action holds the hair, removes tangles, leaves hair free from all deposits and with a beautiful lustre.



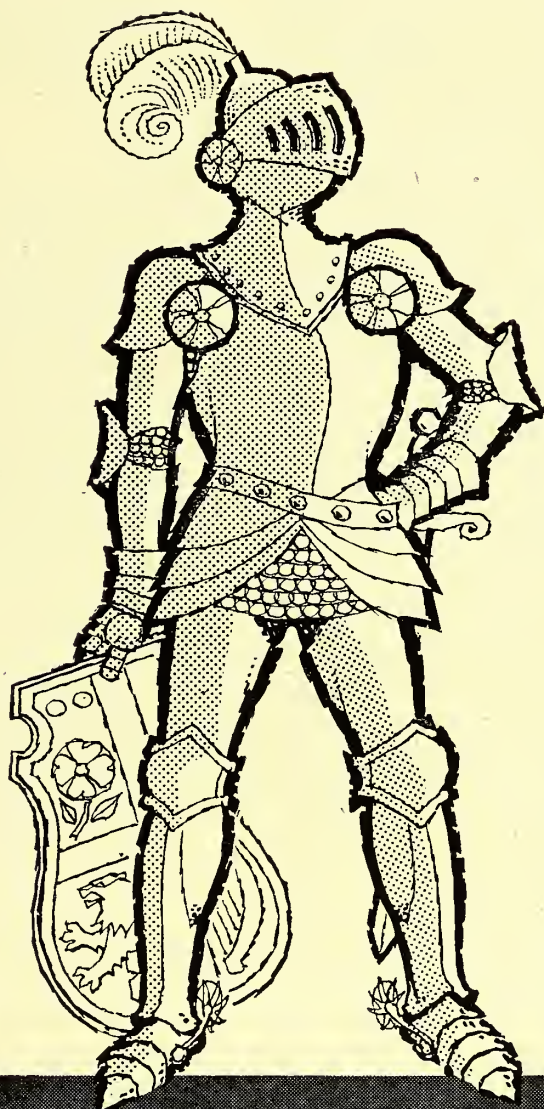
OTHER PRIDE PREPARATIONS

Pride Brilliant Glitters—six colours, Retails at 2/3d.
Pride Colour Streaks—six colours, Retails at 3/3d.
Pride Spraying Brilliantine—2 oz. self-spray polythene bottle, Retails at 3/6d.
Pride Beer Shampoo, Retails at 7d.
Pride Champagne Shampoo, Retails at 7d.
Pride Medicated, Retails at 7d.
Bubble Bath, Retails at 7½d.

PRIDE PRODUCTS SELL ON SIGHT!
These Fast-Selling lines are being advertised continuously in National magazines.

From your usual wholesaler or direct—

B. N. FURMAN (PRODUCTIONS) LTD.
133 Fonthill Road, London N. 4.



No chinks in the armour

When winter's efforts concentrate on attacking the stoutest constitutions, there are thousands who regard vitamin supplementation as vital protection. 'Multivite' and 'Radio-Malt' are trusty weapons.

'MULTIVITE' 'RADIO-MALT'

TRADE MARK

TRADE MARK

Popular choice for vitamin supplementation. Vitamins A, B₁, C and D₂, in full potency in a palatable chocolate coating.

	TRADE	RETAIL
Bottles of 50 pellets	2/4	3/6
" " 500 pellets	14/6	21/9
" " 1000 pellets	27/6	—

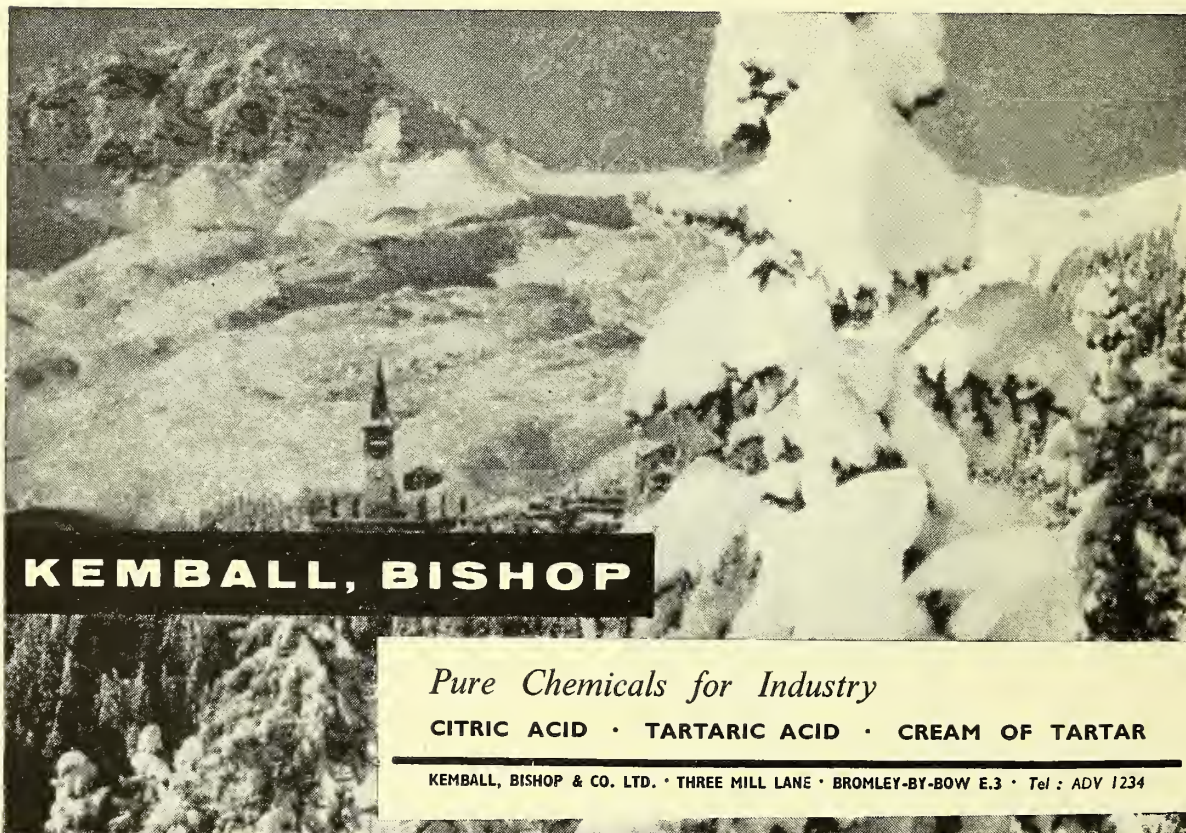
For radiant health. Delicious, toffee-flavoured, so popular with children.

	TRADE	RETAIL
1-lb. jars	—	2/5½ 3/6
2-lb jars	—	4/4 6/3

Special winter bonus terms for direct orders.

THE BRITISH DRUG HOUSES LTD LONDON N.1





KEMBALL, BISHOP

Pure Chemicals for Industry

CITRIC ACID • TARTARIC ACID • CREAM OF TARTAR

KEMBALL, BISHOP & CO. LTD. • THREE MILL LANE • BROMLEY-BY-BOW E.3 • Tel: ADV 1234

Fighting "MANAGEMENT FATIGUE" means BUSINESS

There will be many among your customers, holding responsible positions in all walks of life, whose lives are overshadowed by the lowered state of mind and body now known as "management fatigue". This, the legacy of tension, overwork, snatched and ill-balanced meals, is a major problem of today. But just as 20th-century conditions combine to create it, 20th-century science has evolved, in OKASA, the means to solve this problem. As befits a modern tonic, specifically designed for busy

people, OKASA is prepared in tablet form. Its ingredients are most carefully combined to provide a comprehensive treatment—to strengthen not merely a part, but the whole of the human constitution. By virtue of its new composition, OKASA also qualifies as a geriatric product of the highest order. To people seeking vigorous enjoyment of their later years, as well as to people of all ages living under pressure, OKASA will be of vital and immediate interest.

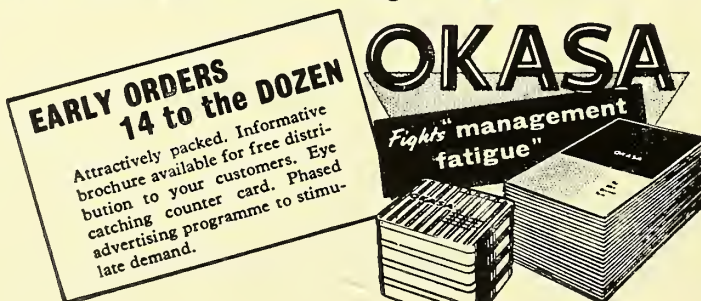
OKASA the 20th-Century Tonic

STANDARD SIZE (100 TABLETS) 24/6
(To the Chemist 16/4)

TRIAL SIZE (50 TABLETS) 14/9
(To the Chemist 11/2)

OKASA is prepared by Hormo-Pharma Ltd. London, and is obtainable from the sole distributors for the U.K.

ROBERTS CHEMISTS (Bond St.) LTD.
76 New Bond St. London, W.1. Tel: MAY 4173



OKASA

Fights "management fatigue"

EARLY ORDERS 14 to the DOZEN

Attractively packed. Informative brochure available for free distribution to your customers. Eye catching counter card. Phased advertising programme to stimulate demand.



"SKYLON" POLYTHENE HOT WATER BOTTLES

A P.A.T.A. LINE

FIBRENYLIE
L I M I T E D

157 DUKES ROAD
WESTERN AVENUE, LONDON, W.3

ACORN 5073-4

Illustration above shows the range of colours in which the new "SKYLON" polythene hot water bottles are being made. Light in weight and complete with Polythene cap and rubber seal.



"SKYLON COMFORT"

Packed in polythene bags with attractive "Sales-Appeal" design showing, in silhouette, a Teenager in shortie and alternatively, Father in his nightshirt and cap, they are, with their bright colours a sure selling line for young and old. Ask your Wholesaler to show you the bottles in their printed wrapper and stock up now—you know our climate!



ON FIRM FOUNDATIONS

When London Bridge was officially opened to the public in 1831, it already had behind it a long and famous history. Since A.D. 43 a bridge had occupied that site, and its direct predecessor had spanned the Thames for over 600 years.

Two years after this event, the foundations of a new venture were laid, for in 1834 the firm of May & Baker was established as chemical manufacturers. After 125 years, May & Baker have built up a firm tradition of high grade chemical production, supplying the world with a wide range of reliable pharmaceutical chemicals. Pharmacists know that, in specifying **M&B** brand, they are ordering chemicals entirely suitable for their requirements.

*Always specify **M&B** brand*

MANUFACTURED BY **MAY & BAKER LTD** • D A G E N H A M

M&B BRAND IODIDES AND BROMIDES

IODINE B.P. RESUBLIMED

POTASSIUM IODIDE B.P. • SODIUM IODIDE B.P.

AMMONIUM IODIDE B.P.C. 1934 • AMMONIUM BROMIDE B.P.C.

CALCIUM BROMIDE B.P.C. 1949 • POTASSIUM BROMIDE B.P.

SODIUM BROMIDE B.P. • STRONTIUM BROMIDE B.P.C. 1934

M&B
for fine
pharmaceuticals



EL: DOMINION 3060 EXT: 317 AND 318

Johnson & Johnson

STERI-PADS

STERILE GAUZE PADS

To cover and protect grazes, cuts and all skin injuries. Packets of four **sterile** Gauze Dressings, each 3" x 3" and individually wrapped.

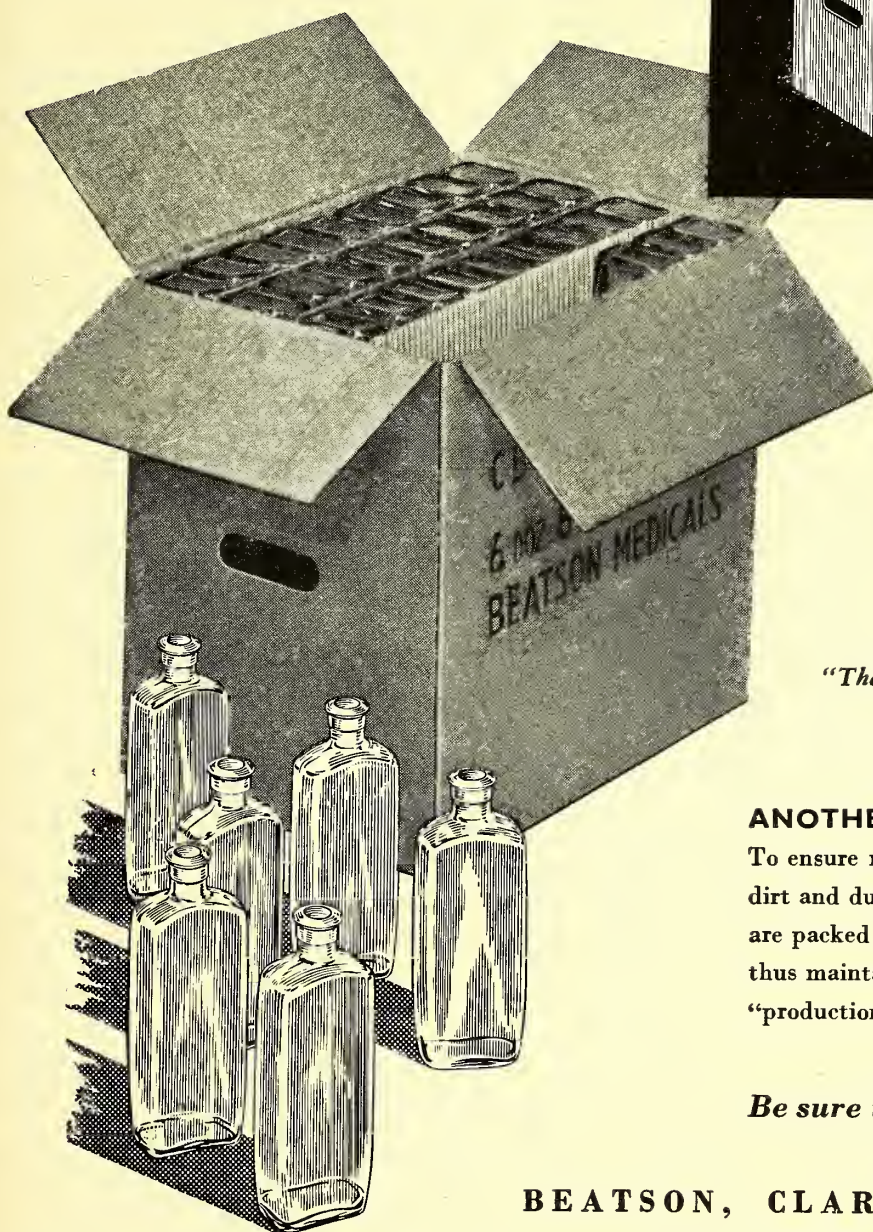


TRADE PRICE
8/- per doz.

 **Johnson & Johnson**
(Gt. Britain) Ltd. Slough, Bucks.

THE WORLD'S MOST TRUSTED NAME IN SURGICAL DRESSINGS

*For cleaner storage . . .
The Beatson Medical
now in the
Beatson Sealed Carton*



"The Sign of a  Good Bottle"

ANOTHER BEATSON SERVICE!

To ensure maximum protection against dirt and dust, all Beatson Medicals are packed in the Beatson Sealed Carton thus maintaining the bottles in "production clean" condition until use.

Be sure to specify BEATSON

BEATSON, CLARK & CO. LTD.

GLASS BOTTLE MANUFACTURERS

ROTHERHAM

(Established 1751)

YORKSHIRE

The time to order and display is now!



*Also in 1/- heat
sealed moisture-proof
cartons*

GENEROUS BONUS TERMS
ON ASSORTED ORDERS OF
1 GROSS OR MORE

*Ask our Representative or write
direct for show material.*

THOS. GUEST & CO LTD

Manufacturing Chemists
CARRUTHERS STREET
MANCHESTER

**Chelated
Iron**

**in Pregnancy
and Paediatrics**

**Two
Recent
Trials**

In these two trials with 51 pregnant patients and 31 young children with hypochromic anaemia results showed :

1. Rapid absorption.
2. High rate of utilization of Fe.
3. Effective Hb. increase.
4. Excellent degree of toleration.
5. Low prescription cost.

Tablets each containing :
the equivalent of 50 mg. Ferrous Iron with 1 mg.
Aneurine Hydrochloride B.P.

(Bottles of 100 — 2/8
Bottles of 1000 — 17/6

Basic N.H.S. Price

Plesmet

Syrup each teaspoonful contains :
the equivalent of 25 mg. Ferrous Iron with 1 mg.
Aneurine Hydrochloride B.P. in a blackcurrant flavoured
syrup.

(Bottles of 2 oz. — 2/-
Bottles of 40 oz. — 18/-

References :

1. *Practitioner*, 1958, 181, 731.
2. *Ibid.*, 1958, 181, 736.

COATES & COOPER

PYRAMID WORKS, WEST DRAYTON, MIDD.



LTD.

Read at a glance... **SOLD** at a glance

THE NEW "MAYFAIR" PERSONAL WEIGHER No. 206

The increasing interest in dieting for health and beauty is making more and more people weight-conscious. All of these people need an efficient, yet economically priced weighing machine for use in their own homes.

We are spending thousands of pounds in advertising our re-styled Mayfair machine to the public. The Mayfair is now available in many attractive colours—white, powder blue, april pink, spring green, or pale primrose. It's read at a glance, and SOLD at a glance. Stock and sell the new Mayfair—now.



SALTER

NATIONALLY ADVERTISED IN
leading women's magazines

ANALGESICS

For many years we have been engaged in this field of manufacture with the result that we now offer the following, all of which, in their separate ways play an increasing and important part in the alleviation of suffering

ASPIRIN B.P.
PARACETAMOL PURE
SALICYLAMIDE PURE

The
Symbol
of



Quality
and
Service

We would welcome the opportunity of quoting our keenest prices and submitting samples.

GRAESSER SALICYLATES LIMITED
SANDYCROFT, NR. CHESTER

Telephone: HAWARDEN 2125

Telegrams "QUALITY" CHESTER

MODERN EQUIPMENT



"WEBSTER'S"
STAINLESS STEELWARE

ISAAC WEBSTER & SONS LTD.

ABBAY WORKS

KIRKSTALL
LEEDS. 5.

TELEPHONE
5180
LEEDS

TELEGRAMS,
"ISAAC WEBSTER"
KIRKSTALL

Keep your

TABLET CARTONS

tidy



★

SIZES 2, 3, 4, 5
now supplied in
RIGID BOXES
containing 1000
cartons

by

SUTTLEY & SILVERLOCK

ANDOVER, HANTS

TEL. 2234

Sold for over 150 years . . .

SOLAZZI THE
CHEMISTS' BRAND



The words **SOLAZZI** and **LIQUORICE** have become
very nearly synonymous

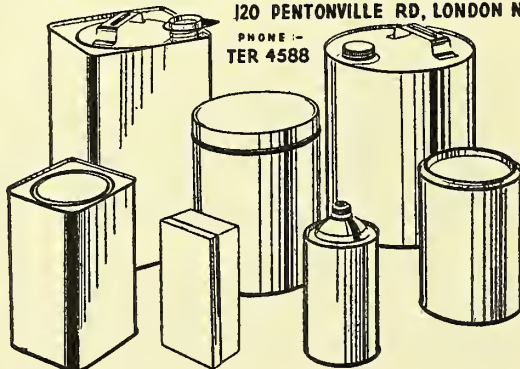
NOW AGAIN IN GOOD SUPPLY

FROM ALL WHOLESALEERS

HAWKER & Co.

120 PENTONVILLE RD, LONDON N.1.

PHONE -
TER 4588



Of proved efficiency against infection

The Antipeol products incorporate the broth filtrates of the microbes common to most cutaneous, naso-pharyngeal and ocular complaints.



Among the MEDICAL AND NURSING PROFESSION and THE FIRST AID ASSOCIATIONS, the ANTIPEOL preparations enjoy a continued and growing popularity. They are highly regarded as simple but effective remedies against even the more virulent forms of skin, nose and eye infections.

MEDICO-BIOLOGICAL LABORATORIES LTD. London, S.E.25

Sole Distributors for the U.K.: ARCHER LABORATORIES LTD CARGREEN ROAD, LONDON, S.E.25

ANTIPEOL

CUTANEOUS OINTMENT

For the immediate treatment of Burns and Scalds. For Boils to avert surgical intervention. Also for ABSCESSSES, ECZEMA, CARBUNCLES, VARICOSE ULCERS, HAEMORRHOIDS, and certain types of DERMATITIS.

RHINO-ANTIPEOL

PROPHYLACTIC NASAL CREAM

For ASTHMA, BRONCHITIS, CATARRH, CORYZA, RHINITIS and many other infections of the naso-pharynx.

OPHTHALMO-ANTIPEOL

THERAPEUTIC OPHTHALMIC OINTMENT

For BLEPHARITIS, CONJUNCTIVITIS, DACRYOCYSTITIS, KERATITIS and other inflammatory conditions of the eye.

31B



Manufactured by



for ASTHMA and BRONCHITIS

Tabasan Tablets are universally famous for speedy relief of Asthma, Bronchitis and Hay Fever . . . they are absolutely safe and invariably result in repeat business.

Order Tabasan to-day. They sell and sell and sell.

	Cost per dozen	P. Tax	Retail
12's	9/8	2/5	1/6
50's	21/-	5/3	3/2
100's	37/-	9/3	5/7

AYRTON SAUNDERS & CO. LTD. HANOVER ST. LIVERPOOL



PRESSWORK, TINS, CANISTERS
DECORATED METAL BOXES
CONTAINERS OF ALL KINDS
DRUMS AND KEGS



MODERN PACKAGES
LIMITED

PHOENIX WORKS

UXBRIDGE 8535-6-7-8

For more than 100 years

CAMTHOL

has been recommended
for **COUGHS & COLDS**

CAMTHOL LINCTUS

The Cough mixture for Adults

CAMTHOL PASTILLES

In tins suitable for pocket and handbag

CAMTHOL VAPOUR RUB

Incorporating the finest Essential Oils



BONUS—Thirteen to the dozen on all orders

	Retail	per doz.
CAMTHOL LINCTUS	3/- per bott. inc. P.T.	Cost 27/6
CAMTHOL PASTILLES	1/9 per tin inc. P.T.	Cost 14/11
CAMTHOL VAPOUR RUB	1/9 per jar inc. P.T.	Cost 14/11

B. HOOPER & CO. LTD.

6 RAILWAY PLACE, FENCHURCH STREET,
LONDON, E.C.3

It doesn't matter to the Contex Cash Till—The accountant at your counter.

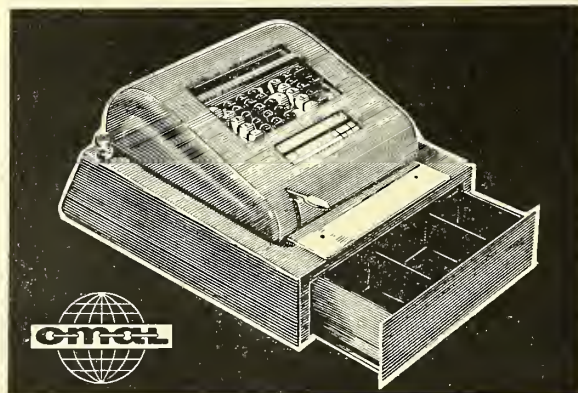
Whatever the transaction, you must handle the money efficiently and accurately—for your customers' sake and your own.

The Contex adds up and you can record all the money that passes over your counter, even when inexperienced assistants are serving.

The Contex is the safe cash till with the built-in adding machine—Yet costs only 39 gns. ! or £4 . 19 . 0 Deposit and £3 . 7 . 0 per month for 12 months.

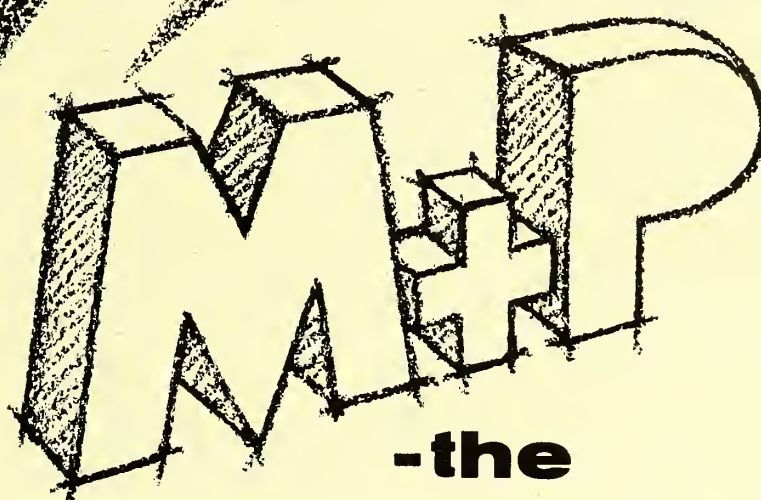
Customers have confidence in the man with a Contex.

What do
you sell?



Write for full particulars: **OFFICE MACHINERY LTD.**,
Omni House, 169, Tottenham Court Road, London, W.1
Tel.: EUSon 6821

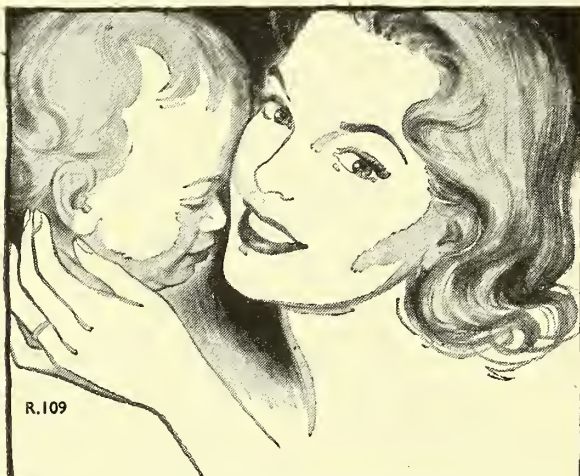
**"THE SERVICE
WITH A
PLUS"**



**-the
recognised
house for
ETHICALS
in the
North-East**

**MAWSON & PROCTOR
PHARMACEUTICALS LIMITED**

Low Friar Lane, Newcastle-on-Tyne 1
Telephone 29751/7 (9 lines)



R.109

**Your customers are
catching on to the
ROZALEX habit—are you?**

An intriguing campaign for Rozalex barrier creams is appearing in the women's magazines. It's to remind women to make a habit of using these barrier creams regularly. Link up with these advertisements by displays—and how are your stocks of No. 1 cream for dry work, No. 8 cream for wet work?

Supplied direct or through your usual wholesaler.

ROZALEX LTD., 10 NORFOLK ST., MANCHESTER 2



A Quality product...

Consistent National

Advertising...

High profit margin...

**Dr. WERNET'S
POWDER**

The best-seller in Denture Fixatives

STAFFORD - MILLER LTD

HATFIELD

HERTS



"Eagle" Brand Chemicals

PHOTOGRAPHIC CHEMICALS
SODIUM METABISULPHITE
SODIUM HYPOSULPHITE
 (Crystals and Anhydrous)
SODIUM SULPHITE
 (Crystals and Anhydrous)
EPSOM SALTS B.P.
GLAUBER SALTS B.P.
PRECIPITATED SULPHUR B.P.
ACCUMULATOR ACID

Enquiries Invited

WILLIAM BLYTHE & CO., LTD.
 HOLLAND BANK CHEMICAL WORKS, CHURCH
 LANCASHIRE

*Tel: 2141/2 ACCRINGTON

Grams: BLYCO, CHURCH



*for fine chemicals
especially:*

ASPIRIN B.P. "FRE-FLO"

SALICYLIC ACID B.P.

SODIUM SALICYLATE B.P.

SALOL B.P.C.

VANILLIN 100%

H. W. GRAESSER-THOMAS LIMITED

**49 LEADENHALL STREET,
LONDON, E.C.3**

TELEPHONES: ROYAL 3011-6111

ANOTHER FIRST FOR



**End-coded
film wrapped
dressings**

MAWS bring you *such* an easy identification system:
MAWS end-coding gives you a quick, easy, tell-at-a-glance
selection of Surgical Dressings.

Each dressing hygienically packed . . . each pack
film-wrapped and sealed for complete dirt-free, dust-free
damp-free protection.

MAWS bring you Surgical Dressings of dependable fine quality.
In the finest pack you can buy. Talk to our representative
about a contract.

**B.P.C. AND HOSPITAL
QUALITY SURGICAL
DRESSING WITH NEW
END-CODING FOR
RAPID IDENTIFICATION
PRODUCED BY MAWS**



**NUCTA
EGG AND LEMON
SHAMPOO**

**NUCTA
CREAM SHAMPOO**
(WITH LANOLIN)

IN THE POPULAR
PLASTIC TUB
TO SELL AT

1/-

Sufficient for two or three
shampoos

TRADE PRICE 6/8 DOZEN

FROM YOUR WHOLESALER OR
DIRECT FROM



STEWART, GOODALL & DUNLOP LTD.
121A PRINCES STREET • EDINBURGH

You cannot do better than specify **COCKER**

P.C.M.X. and D.C.M.X.

For many years we have been large-scale manufacturers of these widely-used intermediates for which we should be pleased to receive your enquiries and to submit samples at your request.

In addition we should like to draw your attention to the undermentioned selection from our production of fine chemicals.

D.D.T. (and certain formulations)

Terpineol B.P. and Perfumery

Chlorxylenol fractions

Chlorinated Cyanuric Acids

Dichlorophenol

P.C.O.C.

Chloral Hydrate B.P.

Terpinolene]

M.B.T.

M.B.T.S.

Benzylated-Cresylic-Acid

Chloral Anhydrous

Ortho Benzyl parachlorophenol.

The finest of the fine from :

COCKER CHEMICAL CO. LTD. (Dept. CD.)

OSWALDTWISTLE • LANCASHIRE

Telephone: Accrington 3621-3

the new
injection
of vitamin D₃

SUNTAX

does	*	speeds hogs to market
this	*	increases liveweight gain
to	*	improves fleece weight and quality
sheep	*	cuts losses from grass staggers

SUNTAX

means
big
business
for you

Powerful support advertising in national farming journals and in provincial newspapers will soon be detailing the benefits of Suntax substantiated by large-scale independent trials . . . helping you to sell this outstanding Crookes development.

be sure you're stocked to meet the demand

packings: 100 ml multi-dose vials
retail price: 33/4 — *only* 8d per 2 ml injection
professional literature available on request



THE CROOKES LABORATORIES LTD PARK ROYAL LONDON NW10

The
CHEMIST AND DRUGGIST
CLASSIFIED ADVERTISEMENTS

Telephone: CENTral 6565

Address Box Number Replies to : THE CHEMIST AND DRUGGIST, 28 ESSEX ST., STRAND, LONDON, W.C.1

Specially spaced Advertisements, including :—Public and Legal Notices, Sale by Auction, Appointments, Contract Work, Patents, Partnerships, 18/- per 1/4 inch minimum and pro rata. Box 2/-. Clearances and Wants, Businesses for Disposal and Wanted, Premises, Agents Wanted, Agencies Wanted, Miscellaneous, 17/6 for 36 words minimum; then 4d. per word. Box 2/-. Situations Vacant, 12/- for 36 words minimum, then 4d. per word. Box 2/-. Situations Wanted, 3/- for 18 words minimum; then 2d. per word. Box 1/-.

ORRIDGE & COMPANY

184 STRAND, W.C.2
Tel: TEMple Bar 9212/3 & 6340

CHEMIST BUSINESS TRANSFER AGENTS AND VALUERS WHOLESALE AND RETAIL
BRANCHES: BIRMINGHAM · SOUTHAMPTON · LIVERPOOL · SHEFFIELD · CARDIFF

BUSINESSES FOR DISPOSAL

HEALTH FOOD & HERBAL STORES. Situated in Essex coast town. Consisting of two large double-fronted shops with flats. Owner retiring in the new year after 33 years of successful trading. Audited accounts show a gross profit of £2,224 for the last trading year. Good lease available or the freehold property can be purchased. Owner can offer his services in an advisory capacity if desired. Price for goodwill and excellent fittings £2,500. Stock at valuation. Box C 2545.

HIGH-CLASS · WOOL/DRUGGIST STORE, etc., large d./f. modern shop with maisonnette. Long lease, Takings £6,300 and increasing with new housing in expanding town 30 miles London, £1,950, plus stock. No pharmacy near. Box C 2534.

YORKSHIRE, WEST RIDING. Old-established family business (limited company) in main street of small industrial town. For sale owing to death. Well fitted, easily run. Turnover £9,000. For details apply: Jacques & Stirk, Chartered Accountants, 9 Henry Street, Keighley, Yorks. C 2539

APPOINTMENTS

**BETHNAL GREEN HOSPITAL,
CAMBRIDGE HEATH ROAD,
LONDON, E.2**

Locum Pharmacist

commencing November 30, 1959. Modern Department. Apply to Chief Pharmacist, ADV. 3413. C 9930

**BRIDGWATER GENERAL
HOSPITAL,
BRIDGWATER, SOMERSET
(BRIDGWATER, MINEHEAD AND
BUTLEIGH HOSPITAL
MANAGEMENT COMMITTEE)**

Chief Pharmacist

required (Category D) for duties in Group Pharmacy, Pleasant country area. Applications, with names of two referees, to Group Secretary at Bridgwater General Hospital. C 9935

**CELL BARNES HOSPITAL,
ST. ALBANS, HERTS**

Chief Pharmacist

required for small modern hospital for mental defectives. Close to City and easy reach of London. Salary scale for Category 1 Hospital £700 rising to £945. Apply: Medical Superintendent. C 9921

**CELL BARNES HOSPITAL,
ST. ALBANS, HERTS**

Assistant-in-Dispensing

required. Small modern hospital for mental defectives close to City and easy reach of London. Salary scale £395 to £510 p.a. Commencing point on scale according to age. Additional payment for qualification. Apply to the Medical Superintendent. C 9907

**DERBY No. 3 HOSPITAL
MANAGEMENT COMMITTEE,
THE PASTURES HOSPITAL,
MICKLEOVER, DERBY
(HOSPITAL FOR MENTAL AND
NERVOUS DISORDERS)**

Chief Pharmacist (Category II)

(male or female) required. Salary £755 to £1,030 per annum. Conditions of service in accordance with the Pharmaceutical Whitley Council. A house is available for a married man at a reasonable rent.

The post is pensionable in accordance with the National Health Service (Superannuation) Regulations, and subject to the passing of a medical examination. Previous hospital experience an advantage.

Applications, giving age, experience and qualifications, together with the names and addresses of two referees should be sent to the Group Secretary as soon as possible. C 9936

**GODALMING, MILFORD AND
LIPHOOK GROUP HOSPITAL
MANAGEMENT COMMITTEE**

Pharmacist

required for King George V and Milford Chest Hospitals. Salary and conditions of service in accordance with Whitley Council scales: £605 to £815 per annum. Accommodation and full board available for single person at a charge of £205 per annum. Applications, stating age, qualifications and experience, together with names of three referees, to Group Secretary, Milford Chest Hospital, Godalming, Surrey, by not later than December 5, 1959. C 9914

**HILL END HOSPITAL,
ST. ALBANS, HERTS**

Assistant-in-Dispensing

male or female, required as soon as possible. Salary at age 22 and over £395 rising to a maximum of £510 per annum plus £20 per annum for possession of Apothecaries' Hall or similar certificate. Applications stating age and full particulars of experience to the Chief Pharmacist. C 9911

**GODALMING, MILFORD AND
LIPHOOK GROUP HOSPITAL
MANAGEMENT COMMITTEE**

Assistant-in-Dispensing

required for King George V and Milford Chest Hospitals. Salary: £215 per annum at age 18, rising to £510, with additional £20 for certain qualifications. Accommodation and full board available for single person at a charge of £160 per annum. Superannuable post. Apply to Group Secretary, Milford Chest Hospital, Godalming, Surrey, by not later than December 5, 1959. C 9913

**KING EDWARD VII HOSPITAL,
WINDSOR**

Assistant-in-Dispensing

required. Applications to Secretary. C 9896

**KING'S LYNN AREA HOSPITALS
MANAGEMENT COMMITTEE**

Assistant-in-Dispensing

A vacancy occurs for an Assistant-in-Dispensing (Apothecaries' Hall Certificate desirable) in the Group Pharmacy Department at the West Norfolk & King's Lynn General Hospital, King's Lynn.

Whitley Council salary and conditions of service. Applications, including age, experience and names of two referees to be sent to the Group Pharmacist. C 9928

**LEYTONSTONE (No. 10)
HOSPITAL GROUP,
WHIPPS CROSS HOSPITAL,
LONDON, E.11
(Category V Hospital)**

Pharmacist

Applications are invited for the above post. Applications from part-time Pharmacists will be considered. The hospital is ideally situated, being on the Central Underground Line within 20 minutes of Central London.

Application forms from the Hospital Secretary to be returned as soon as possible. C 492

**LONDON JEWISH HOSPITAL,
STEPNEY GREEN, E.1**

Pharmacist

Applications are invited for the post of Pharmacist. Whitley Council salary scale and conditions of service. Applications stating age, qualifications, experience and the names of two referees, to Secretary, Stepney Green Hospital Management Committee, Mile End Hospital, Bancroft Road, E.1. (Further particulars may be obtained from the Chief Pharmacist: Tel.: Stepney Green 4251.) C 9868

ERNEST J. GEORGE & CO.

329 HIGH HOLBORN, LONDON, W.C.1.

Telephone: HOLBORN 7406/7

*Professional Valuers to the Pharmaceutical Trade.—Wholesale, Retail and
Hospital Stocks, Branches throughout England and Scotland.*

Appointments—Continued**KING EDWARD VII HOSPITAL,
WINDSOR
(Category III)
Pharmacist**

required immediately. Applications giving details of service to Secretary. C 9908

**MANSFIELD HOSPITAL
MANAGEMENT COMMITTEE
Pharmacist**

required for the modern Group Pharmaceutical Department at the King's Mill Hospital, Sutton-in-Ashfield, Nottinghamshire. Salary is on the Whitley Council scale, £605 rising to £815 per year. The point of entry into the scale will be determined by previous professional experience. An unfurnished semi-detached house is available on rental for a married man and single living accommodation for both male and female staff is also available, if required.

Applications stating age, qualifications and experience to the Group Secretary, Mansfield Hospital Management Committee, "Oak Bank," Crow Hill Drive, Mansfield, Notts, as soon as possible. C 9852

**METROPOLITAN HOSPITAL,
KINGSLAND ROAD,
LONDON, E.8.
Locum Pharmacist**

required to work in a modern department. Apply to Hospital Secretary. C 445

**QUEEN CHARLOTTE'S
MATERNITY HOSPITAL
Pharmacist**

Applications are invited for the post of part-time Pharmacist (two days per week) at Queen Charlotte's Maternity Hospital. Salary and conditions of service in accordance with the Whitley Council regulations. Enquiries to the Chief Pharmacist and applications giving details of age, qualifications and experience together with the names of two referees to the House Governor, 339 Goldhawk Road, London, W.6. C 9927

**ROUNDWAY HOSPITAL,
DEVIZES, WILTS
Assistant-in-Dispensing**

required, N.H.S. conditions. Salary according to age, £175 p.a. at 16 years, £395 p.a. at 22 years and over rising to a maximum of £510 p.a. (plus £20 p.a. for an approved qualification). Applications stating age and experience with names of two referees, to the Group Secretary, Roundway Hospital, as soon as possible. C 9918

**SEAMEN'S HOSPITALS
MANAGEMENT COMMITTEE
Pharmacist**

required for duties under Chief Pharmacist at Dreadnought Hospital, Greenwich. Salary and conditions of service in accordance with Whitley Council regulations. Staff flat available if required. Applications stating age, qualifications and experience, together with the names and addresses of two referees, to be sent to the Group Secretary, Dreadnought Seamen's Hospital, Greenwich, S.E.10. C 9926

**SOUTH-WEST DURHAM
HOSPITAL MANAGEMENT
COMMITTEE****Chief Pharmacist (Category II)**

whole-time or part-time required at Holywood Hall Hospital, Wolsingham. Salary £755—£1,030 per annum plus £25 if holding higher qualification. Free transport available from Bishop Auckland, if required. N.H.S. conditions and superannuation. Application forms from the undersigned to be returned by December 18. K. G. T. LUXFORD,

Group Secretary/Finance Officer,
South West Durham Hospital
Management Committee,
The General Hospital,
Bishop Auckland. C 9933

**STEPNEY GROUP HOSPITAL
MANAGEMENT COMMITTEE,
MILE END HOSPITAL,
BANCROFT ROAD,
LONDON, E.1**

Pre- or Post-graduate Student in Pharmacy required at the above hospital to commence duty in January 1960. Salary scale and conditions of service in accordance with Whitley Council. Applications, with names of two referees, to be sent to the Chief Pharmacist. C 9878

**ST. GILES' HOSPITAL,
CAMBERWELL, S.E.5****Locum Assistant-in-Dispensing**

required for the month of December. Applications and all enquiries to Chief Pharmacist, St. Giles' Hospital (Rodney 4221). C 9934

**ST. MARY'S HOSPITAL
CHILDREN'S DEPARTMENT,
PRINCESS LOUISE KENSINGTON
HOSPITAL FOR CHILDREN,
ST. QUINTIN AVENUE,
LONDON, W.10
Locum Pharmacist**

required on a month to month basis. Whitley Council salary and conditions. Applications to Secretary, from whom further particulars can be obtained. C 493

**THE GENERAL HOSPITAL,
DEWSBURY, YORKS
Pharmacist**

required immediately for modern department in a Category III hospital. Post offers good experience including small-scale manufacturing. Salary scale £605—£815 per annum. Accommodation for single person can be arranged, if required. Applications giving age, experience and qualifications, together with the names and addresses of two referees to be sent, as soon as possible, to the Administrative Officer at the hospital. C 9909

**THE LONDON HOSPITAL,
WHITECHAPEL, E.1
Pharmacist**

The above hospital has a vacancy for a Pharmacist. Salary £605—£815 according to previous experience and service. Applications to House Governor. C 488

**WEST MIDDLESEX HOSPITAL,
ISLEWORTH, MIDDLESEX
Assistant-in-Dispensing**

required in Pharmaceutical Department for varied duties. Salary £395 per annum at age 22, rising to £510, plus London Weighting (additional payment of £20 per annum for suitable qualifications). Apply giving names of two referees to the Chief Pharmacist. C 480

**TEACHING APPOINTMENTS
SUNDERLAND EDUCATION
AUTHORITY,
SUNDERLAND TECHNICAL
COLLEGE**

Applications are invited for the post of:

Lecturer in Pharmaceutics

Candidates should be graduates in Pharmacy or hold a qualification of the Pharmaceutical Society. The successful candidate will be required to teach up to the standard required for the Bachelor of Pharmacy Degree of the University of London, and to commence duties as soon as possible. Salary in accordance with the Burnham (Technical) Scale for Lecturers:—
Men .. £1,370 x £35 to £1,550 per annum
Women .. £1,100 x £28 to £1,240 per annum
plus equal pay increments.
Further particulars and Forms of Application from the Registrar, The Technical College, Sunderland, co. Durham. Applications to the undersigned within fourteen days. Canvassing will disqualify.

W. THOMPSON,
Director of Education.

Education Offices,
15 John Street,
Sunderland, co. Durham. C 9906

EDUCATIONAL**LONDON COLLEGE OF
PHARMACY AND CHEMISTRY
FOR WOMEN**

7 Westbourne Park Road, W.2
Established 1892

The only College in S.E. England teaching exclusively for the Assistants-in-Dispensing Examination of the Society of Apothecaries. Enrolling now for six months' full-time or 2-year part-time course for Student Dispensers under 1956 Regulations, 100 per cent. Examination successes in 1958. C 404

SITUATIONS VACANT**RETAIL (HOME)**

DOVER. Excellent opportunity, main-road premises. Chemist (lady or gentleman) required in spring to manage privately owned pharmacy. Particulars of age, experience, salary, etc., in confidence, to Whorwell, 96A New Dover Road, Canterbury. C 2514

OLDHAM CO-OPERATIVE CHEMISTS, LTD., invite applications for the position of pharmacy branch manager, either sex. Modern accommodation available if necessary. Superannuation. Salary and other emoluments at least £960. Applications stating age, experience, etc., to Oldham Co-operative Chemists, Ltd., King Street, Oldham. C 454

WANTED: Pharmacist to manage old-established pharmacy in a busy main-road shopping area. Excellent prospects and scope for individual ideas to an alert and vigorous man. Salary and commission according to experience. Apply in confidence marking envelope "Application for Managership," to Spilman (Chemists), Ltd., c/o 2 Storey Street, Hull. C 2530

YOUNG PHARMACIST required for busy country pharmacy, duties chiefly dispensing, up-to-date knowledge of photography important, staff of 9. — Dan Clare, Cranleigh, Surrey. ("Phone: 207.") Mark Envelope "Private." C 2543

WHOLESALE

ASSISTANT CHEMIST required by International Company, manufacturing pharmaceuticals and cosmetics. Age 35 years or under. Preferably with experience in pharmaceutical field, particularly on emulsions. Progressive post for energetic man. Write fully, details of qualifications, experience and salary required in strictest confidence to Box C 9920.

DETAIL MAN, already calling on hospitals or skin specialists in England, can get substantial extra remuneration as a sideline by arranging for clinical tests to be made of one ethical product which has already proved its worth on test in a major London hospital. There is nothing to sell. Write giving details of present assignment to Box C 9887.

JOHN BELL, HILLS & LUCAS, LTD., require the services of a young pharmacist (lady or gentleman) to assist with general administrative duties including control of Dangerous Drugs and for dealing with technical queries. Apply: Managing Director, Oxford Works, Worsley Bridge Road, London, S.E.26. C 9780

PART-TIME consultant pharmacist required by manufacturer in London area. Details of experience and qualifications to Box C 2525.

JOHN WYETH & BROTHER LIMITED
invite applications for the position of**HEAD OF THE PHARMACEUTICAL
DEVELOPMENT DEPARTMENT**

This is an important position with an expanding pharmaceutical company having extensive international connections and there are excellent prospects for a person of the right calibre. Applicants should have had considerable experience of formulation and development work, including the transfer of laboratory processes to the production scale. They should be capable of leading an enthusiastic team of graduates and assistants, and have the ability to liaise closely with other departments of the company. The Research and Development Laboratories, which are among the most modern in the country, are situated at Havant, Hants, and offer every facility for work of a high standard.

The starting salary will be commensurate with the experience and qualifications of the successful applicant and will reflect the importance which the company attaches to this position. The conditions of employment include the benefits of a generous non-contributory pension scheme.

Write in confidence to:—

Technical Director,
John Wyeth & Brother, Ltd.,
Clifton House,
Euston Road, London, N.W.1

C 9931



LEDERLE LABORATORIES DIVISION CYANAMID OF GREAT BRITAIN LTD.

MEDICAL REPRESENTATIVES

In various areas of the United Kingdom

These appointments provide opportunities to men with initiative in an established and rapidly expanding organisation.

Preference will be given to applicants with a pharmaceutical or medical background and/or previous selling experience in this field. Age preferred 25-35.

The positions carry a good commencing salary; an excellent pension and insurance scheme is operated and a Company car plus travelling expenses provided.

Detailed applications which will be acknowledged should be addressed, in complete confidence, to:

PERSONNEL MANAGER

CYANAMID OF GREAT BRITAIN LIMITED

Bush House, London, W.C.2

C9929

Situations Vacant—Continued

LONDON, N.W., S.W., W.C., W.,
and parts of London, N.

CUXSON, GERRARD & CO., LTD.,
OLDBURY

Require the services of a representative to cover their interests to chemists. Applicants should be resident on the territory. Superannuation scheme; car provided. C 9925

ROCHE — The chance of a steady career. Opportunities are offered to outstanding young men with drive and initiative wishing to start as medical representatives. A pharmaceutical qualification/experience or equivalent academic attainment essential. Vacancies occur in: 1. London, East, and Essex. 2. Leicester; South Staffordshire. Good salary, exceptional pension scheme, full expenses; successful applicants are assisted to own their own cars. First-class candidates desiring success and security should apply with full details to the Secretary, Roche Products, Limited, 15 Manchester Square, London, W.1. Applications will be treated as confidential. C 9923

TABLET MAKER with wide compression and granulation experience. Conversant with modern equipment and used to working on large-scale manufacture. Salary by arrangement. Pension and insurance schemes. Applications to: Staff Manager, Winthrop Laboratories, Limited, Edgefield Avenue, Gosforth, Newcastle-upon-Tyne, 3. C 9924

WHOLESALE. Unqualified male, age about 35, with comprehensive knowledge of chemists' sundries. Able to control staff and take charge of assembly, checking and despatch. Herbert Ferryman, Ltd. (P.O. Box 14), Southampton. C 9922

WHOLESALE (OVERSEAS)

CHEMIST with full knowledge in the manufacture of food and soft drinks wanted for Spain. Applicants should have full experience in food processing as well as plant manager. Box C 2533.

SITUATIONS WANTED RETAIL (HOME)

REPRESENTATIVE (35), resident Nottingham, with wide experience, calling on chemists in the Midlands, requires similar position with reputable house, available as required. Box C 2544.

WHOLESALE

TOP SALES EXECUTIVE AVAILABLE as administrative assistant to Sales Director. Over six years' experience, home and export, in ethical pharmaceuticals but willing to accept post outside this field. Educated Malvern and Pembroke College, Cambridge (natural sciences). Write Box C 9919.

AGENTS WANTED

Agents required by the distributors of the well-known products:

**HAZE AIR PURIFIER AEROSOLS
FLORET PERFUMED INSECTICIDE
AEROSOLS**

Must have established connections with retail chemists, departmental stores, Co-Op. Societies, etc. Many Southern areas available including the Midlands, East Midlands, London, etc. Many accounts passed to successful applicants.

Apply:

Sterling Supplies (Abridge), Ltd.,
London Road, Abridge, Romford, Essex.

C 2536

WANTED

**SURPLUS CAMERAS, ENLARGERS,
CINE CAMERAS & PROJECTORS,
PHOTOGRAPHIC EQUIPMENT OF
EVERY DESCRIPTION. SURPLUS
AND OUTDATED FILM & PAPER,
LARGE OR SMALL QUANTITIES.**

Phone, write or call: —

SPEARS
(Dept. D.), Watling Street, Shudehill,
Manchester.

Phone: Deansgate 7705 (3 lines)
Bankers: Midland Bank, Ltd.

C 438

Senior Medical Copywriter

Have you the experience it takes to produce first class copy and ideas that sell ethical pharmaceutical and medical products? If so, there's an important, well paid vacancy you might fill, backed by a top-line studio, in a leading London agency. This is a post that only a senior, thoroughly experienced and imaginative copywriter could fill.

Please send fullest details in strict confidence to Box C 9917

WE WILL PURCHASE for cash a complete stock, a redundant line, including finished or partly finished goods, packing raw materials, etc. No quantity too large. Our representative will call anywhere. Write or telephone:— Lawrence Edwards & Co., Ltd., 6/7 Wellington Close, Ledbury Road, London, W.11. Tel.: Bayswater 4020 and 7692. C 140

BUSINESS OPPORTUNITIES

WOULD £5,000

HELP YOU TO

GET AHEAD?

£5,000 is the main prize in the new Get Ahead contest organised by the *News Chronicle*. The B.B.C. will televise eight heats and the final. You need not have your own business to qualify for the final. All finalists will win considerably more than £200. In all, £7,500 will be won. Anyone with a sound business idea for putting £5,000 to good use should write for details now to: Get Ahead, *News Chronicle*, 4/7 Lombard Lane, London, E.C.4. C 9897

PATENTS

THE PROPRIETORS of British Patent No. 736,385 relating to preparations of the adrenocorticotrophic hormone having a protracted effect and method for producing the same, are desirous of entering into negotiations with one or more firms in Great Britain for the purpose of exploiting the invention either by sale of the Patent Rights or by the grant of a Licence on reasonable terms.—Interested parties who desire further particulars, should apply to W. H. A. Thicmann, Prestige House, 14 to 18 Holborn, E.C.1. C 2542

WILL 1960 BE A LEAP YEAR FOR YOU?

IN JANUARY 1960 present medical representatives of Bayer Products Ltd. will be standing on the brink of a great leap forward.

FOR THEM the way ahead is clear and straight—an M.I. to all their goals, and ours.

FOR THEM the decision to join the Company was (we quote):

“the most rewarding decision I have ever taken . . .”

“not just another job . . . a turning point in my life . . .”

“a shock. I *thought* I knew all about medical representation. . . .”

FOR THEM the tough training, the challenge of new ideas, the really hard work, have rewards that spring from our recognition that they are men first and representatives second—a close second.

WE ARE NOW LOOKING for more men of the same calibre to share their work and their rewards. Men with lively minds and the energy to turn good training into sales. Men with pharmaceutical or medical background or proved selling ability in similar fields. Trainee representatives are required in all parts of the country. Experienced men are needed too.

A FEBRUARY TRAINING COURSE will place their feet on a ladder that has no end. They will join a Field Force we are proud to send out to doctors and pharmacists everywhere.

IF YOU THINK you have earned the right to join them, write now for your application form: The Sales Training Officer, Bayer Products Limited, Neville House, 55 Eden Street, Kingston-on-Thames, Surrey.

C 9916

WILLIAM R. WARNER & CO. LTD.

MEDICAL REPRESENTATIVES

As a result of rapid growth and re-organisation, William R. Warner & Co. Ltd. have a number of interesting vacancies for Medical Representatives.

Applications are invited from men aged 25–35 who wish either to make or consolidate a career for themselves in the Pharmaceutical Industry. For some appointments, pharmaceutical or equivalent qualification is an advantage, but applicants with a good technical background will be considered.

Those candidates who are short-listed will be interviewed with a view to joining a training course which will commence in February 1960.

Initial salary will be in keeping with experience and qualifications and the positions are permanent and progressive. A Company Car is provided and all expenses paid. A non-contributory pension scheme is in operation.

Applications, which will be treated in strict confidence, should give all details of age, education and qualifications and experience, and should be sent to:—

Personnel Officer, William R. Warner & Co. Ltd., Eastleigh, Hants.

C 9883

Traditional
Solazzi
Liquorice

Loosens phlegm,
soothes bronchitis and asthma, prevents
infection of the air passages (smog and
smoke). A modern medicament in digestive
disorders and gastric ulcers.

MADE FROM PURE CALABRIAN LIQUORICE ROOT
Can be obtained from all wholesalers

BERDOE & FISH
Chemists' Transfer Agents and Valuers
41 ARGYLE SQUARE, KING'S CROSS, W.C.1
(opposite St. Pancras and King's Cross Stations)

VALUATIONS for all purposes
BUSINESSES urgently required
STOCKTAKING for Income Tax purposes
TRANSFERS without publicity our speciality

● All Valuations and Stocktakings, carried out under
personal supervision of principals.

Established 1870

Phone: TERminus 3574

AGENCIES WANTED

A WELL-ESTABLISHED FIRM in Malta
G.C. is seeking additional agencies for patent
medicines for adults and children, toilet soap,
babies' goods in general, plastic articles, etc.
Only manufacturers' offers will be considered.
Excellent U.K. trade. References available.
Write to Box C 2460.

FINANCE

FROM 5½% a competitive and substantial 1st
and 2nd mortgage fund available for freehold/
leasehold businesses, houses, flatlets, etc. £200
min. Write Cranbrook Insurance Bureau, 49
Cranbrook Road, Ilford, Essex. C 489

IS PRICING YOUR PROBLEM? KENNETT PRICE MARKERS

are ultra smart, beautifully designed
solid plastic markers that will really
sell your goods. Send now for free
samples, absolutely no obligation.
55 Eastgate Street, Winchester, Hants.

C 409

TENDERS

DRUGS AND PHARMACEUTICAL PREPARATIONS

The Hospital Management Committees
of the North-east Metropolitan Region
will shortly be inviting quotations for
a joint contract covering a range of
drugs and pharmaceutical preparations.
A panel of suppliers from whom ten-
ders will be invited is in course of
preparation, and contractors wishing to
be included should write at once to the
Group Secretary, Hackney Hospital,
London, E.9. C 9912

TRADE MARKS

THE TRADE MARK No. 716972
consisting of the word "MARINOL"
and registered in respect of "All
goods included in Class 5 for sale in
the United Kingdom, but not includ-
ing veterinary preparations" was as-
signed on the 2nd June, 1959, by
Bayer Products, Limited, of Neville
House, Eden Street, Kingston-on-
Thames, Surrey, to Leda Chemicals,
Limited, of Eley Estate, Angel Road,
Edmonton, London, N.18, and Berk
House, Portman Square, London, W.1.
WITHOUT THE GOODWILL OF
THE BUSINESS IN WHICH IT
WAS THEN IN USE. C 2541

DEVELOPING AND PRINTING

QUALITY FIRST but QUALITY FAST
D and P
Guaranteed per return postal service
GVENT PHOTOGRAPHIC SERVICE
Snatchwood Works, Pontypool, MON
Telephone: Talywain 355 C274

*The newly formed Astrapharm-Hewlett
Group of Companies unifying A. B. Astra
of Sweden and C. J. Hewlett & Son Ltd., of
Watford, with their combined facilities for
pharmaceutical research and marketing,
continuing their policy of vigorous
expansion wish to make the following
appointments:—*

1 Senior Pharmacist

This position will be filled by a Senior
Pharmacist with administrative ability who is
fully competent to supervise the manufacture of
sterile products on a large scale in new
laboratories now under construction. A broad
knowledge of general pharmaceutical
production and plant and machinery would
be advantageous.

2 Assistant Chemists

Two positions are vacant, the first for a
Chemist to supervise work in the
pharmaceutical development laboratory and
preferably experienced in analytical control
methods including routine analysis of raw
materials. Inter B.Sc. or Higher National
Certificate Level essential.

The second for a Chemist to undertake routine
analysis under laboratory conditions and to be
responsible for the control of sterilised solutions
including bacteriological testing. G.C.E. Advanced
Level Chemistry is desirable.

Please write to the Personnel Manager giving
full details of age, education, qualifications,
career and salary. Applications will be treated
in strict confidence.



Astrapharm-Hewlett, King George's Avenue, Watford, Herts.

C 9932



DISPLAY

*the public
choice*

**THE ETHICAL MEDICAL PREPARATION FOR
THE TREATMENT OF ASTHMA**



*Prescribed and recommended by the Medical Profession
in Hospitals, Private Practice and Government
Departments in all parts of the world to which it
has been introduced.*

Tax free Dispensing Pack available.

BRITISH FELSOL COMPANY LTD
WIGTON HOUSE, 206-212 ST JOHN STREET, CLERKENWELL, LONDON; E.C.1.
Telephone, CLERkenwell, 5862 Cables, 'Felsol', Smith, London.